

The Week

HOME 1-5
 UGC says no to conversion courses
 Test-tube baby pioneer calls for greater public support
 No physics lecturers under 40 warning
 Labour will devolve Scottish universities

NORTH AMERICA 6
 MIT report calls for more distance teaching of engineers
 Test scores show improvement after 19-year decline
 "Know thy enemy" boost for Soviet studies
 University-school partnership in Massachusetts

OVERSEAS 7
 Australia hits buns on Soviet cultural exchanges
 New Zealand universities face squeeze and freeze
 Foreign teachers refuse anti-PLO pledge on West Bank
 West Germany fails to cut course length

ARTICLES 8-15
 Founding fathers: Felicity Jones talks to Sir Norman Lindop, 8
 John O'Leary looks at the agenda for the first weekend conference of the National Advisory Body, 8
 Leverhulme seminar on structure: full report, 9-12
 Peter Odell discusses the outlook for energy supplies, 13
 Roy Wallis argues that scholars should keep an open mind on the Moonies, 15

ARTS 16
 Landscape gardening, mime shows on Edinburgh's Fringe, and a Liberal policy for the arts

BOOKS 17-24
 John Lucas reviews John Halperin's study of George Gissing, 17
 Z. A. Peleczynski reviews the two-volume Oxford history of Poland (18), Nicholas Everitt discusses David Hume (19), and Brenda Cohen reviews a new study of the comprehensive school (20)

BIOLOGY BOOKS 25
 Darwin, ethology, genetics, and taxonomy are among the subjects of new books in biology

NOTICEBOARD 25

CLASSIFIED INDEX 26

OPINION 30-32
 Timothy Healy praises the public-private mix in American higher education; Christopher Price criticizes the narrowness of the agenda of the Leverhulme Inquiry; and Don's Diary from Professor J. N. Murrell of the University of Sussex, 30
 Letters on teaching literary theory and Natfue and CHD; and Union View from Tina Day of the AUT, 31

Next Week

Alan Ryan on John Rawls *The Great American Universities: Harvard*
 Gobineau and Chamberlain *The Outlook for Academic Journals*
 New books from university presses

THE TIMES NEWSPAPERS
 LONDON
 Published by Times Newspapers Ltd. P.O. Box 1
 200 Great Portland Street, London W1M 0LL. Tel: 01-638 6200.
 Printed by The Times Printing Co. Ltd., 1, Abchurch Lane, London EC4N 3DF. Tel: 01-475 3211.
 Registered with the Registrar of Companies, London No. 2809873. Registered with the Registrar of Newspapers for England No. 25232. ISSN 0950-0804.



HIGHER EDUCATION SUPPLEMENT
 Priory House, St John's Lane, London EC1M 4BX. Telephone 01-253 3000

The metaphor of structure

The firm intention of the Leverhulme programme of study into the future of higher education has been to raise our eyes from the immediate troubles to the far horizon of future possibilities. It has not always succeeded but it has always tried. Inevitably perhaps the last seminar, on structure and governance, was preoccupied by immediate issues like the credibility of the University Grants Committee and the suitability of the new National Advisory Body for local authority higher education. At times the Warwick seminar descended too far into acronyms and acronyms in which all sense of consensus or perspective were lost.

This should have surprised no one. Structure is immensely important, far more important than many working in higher education are often prepared to concede, because the terms on which a nation chooses to organize its system of higher education are the clearest possible indication of the priorities that the system is expected to pursue. Far from being an administrative irrelevance structure is a powerful metaphor about the public purposes of higher education. Secondly, the present structure of British higher education, in broad terms the Robbins-Crosland settlement of the mid-1960s, is showing clear signs of obsolescence. Thirdly, of course, the present cuts in public expenditure (and rumoured future cuts) and the prospect of a serious decline in conventional student demand for demographic reasons have put universities, polytechnics and colleges under great and unaccustomed strain.

Yet, when considering a new structure for higher education, it is important not to get too close. For even if the factionalism of special interests is suppressed and the entire natural ambition of institutions, and sectors, to achieve greater status is regulated there is still a danger that too short or narrow a perspective will lead to an excessive concentration on administrative and procedural details. What really matters about any structure are the values and principles it embodies. The first question should be: what balance of preoccupations and priorities is represented in a particular structure for higher education? The second but still very important question is: does it work, in the senses of being acceptable in terms of sensible administrative practice and of promoting its own primary purposes?

Unfortunately the debate about the best structure for British higher education is often staid on its head. Explicit discussion is largely confined to administrative and procedural questions, whether the composition and methods of the UGC or of the NAB, quickened by a semi-explicit expression of factional interest. The honest and important differences of opinion about the priorities of higher education which these imperfectly represent remain implicit.

For these reasons it is particularly important that any discussion about a new structure for higher education, in the context of the Leverhulme programme, should retreat a little from present events - not in a spirit of apologetic academic detachment but to gain the elbow room to ask fundamental questions. The first of these is: what does the present structure signify? For it is not as simple as it looks. First in simple descriptive terms the convenient dichotomy of the binary policy established after 1965 by Anthony Crosland and maintained by all his successors as Secretary of State tends to obscure a confusing and growing diversity. In the non-university sector the polytechnics jostle with the colleges of higher education, themselves subdividing into proto-liberal arts and proto-community colleges (to borrow some approximate American models); the important contribution of ordinary

further education colleges that offer some advanced courses is no less real because it is often unrecognized. In Scotland a different pattern prevails. Even in the apparently homogeneous university sector there are important sub-types, of which the technological universities at one end and Oxford and Cambridge at the other are only the most prominent examples.

Secondly, in terms of interpretation the confusion is even greater. The binary policy, of course, has remained controversial despite the remarkable progress made by the polytechnics in particular under its protective aegis. The main reason perhaps is that it has never been clear what the policy was supposed to signify: was, and is, its main purpose to establish the polytechnics as a rival, or a complementary, or a subordinate sector to the universities? Of course, no sophisticated and long-acting policy can be so exclusively simple. But its reputation and so its durability do depend on the general view of which of these three aspects has predominated.



Our own view is that the binary policy has provided a *corollary* behind which the polytechnics have been able to flourish in a way that would have been impossible within a unitary system. The record shows that during the 1970s despite the rundown in teacher education the main thrust of expansion took place in the non-university sector in contrast to the 1960s when university expansion was most spectacular, and that this attracted substantial extra resources to the polytechnics. It also needs to be emphasized that there has never been any official attempt to restrict the polytechnics and colleges to particular subjects or to lower level courses - in contrast, say, to the strict hierarchy that applies in California.

However, other views are possible. By and large the polytechnics have been discouraged from undertaking research except on the strictest of strict customer-contractor basis, although many staff have considerable potential. Too heavy-handed an emphasis on local, as contrasted with national, responsibilities and on sub-degree and part-time courses can weaken fears that the polytechnics are being discouraged from being too uppity. Although these fears are certainly exaggerated, if only because the pressure from the universities to keep the polytechnics in their place would have been far more intense within a unitary system, the new National Advisory Body needs to make it categorically clear that it is an advocate, not a policeman.

Larking behind this ambiguity are important differences of opinion about the priorities of a modern system of higher education. Some argue that higher education can only remain socially relevant, and so intellectually vital, if it moves further away from the traditional model of a university and incorporates parts of the more open and populist tradition of further and adult education. Others see an important distinction between "academic" and "problem-solving" knowledge. Others again see the main blockage as restricted access, and consequent sufficiency, of the university higher education club.

And that is just the binary policy and the arguments that swirl around

it. For, of course, the present structure of higher education is far more than just the division between university and non-university sectors. It has become conventional to say that the Robbins report was "rejected". In fact that is not true: the Robbins recipe for change was half or possibly three-quarters cooked. A very substantial expansion of university education did take place during the 1960s. New universities with at any rate the opportunity to undertake radical experiments were established, the colleges of advanced technology were transferred to the university sector. Over the last generation the universities have become much more heterogeneous, a fact imperfectly recognized by the public, the Government, the UGC, and perhaps by the universities themselves.

Similarly within the non-university sector heterodoxy has increased to breaking down the rigid but misleading symmetry of the binary policy. The colleges of higher education are struggling to create a stable and separate identity in the shadow of the larger polytechnics. Teacher education which touches nearly every part of the system remains subject to arbitrary and chaotic interventions by government. Nor is it fair to regard all this as the bawling of special interests, because lying beneath it are important issues concerning the proper relationship between full and part-time, degree and sub-degree, initial and continuing, general education and vocational courses.

The lessons to be drawn from such confusion and mischance are far from obvious. Perhaps three broad points deserve to be made. First, it is important that there should be a more coherent debate about the kind of higher education we need towards the end of the twentieth century. We need to think more about values, purposes, and practices, because only in this larger context can more detailed debates about structure make sense. Do we wish to retain a high-quality, high-intensity, semi-segregated higher education or to plunge along a more populist path?

Second, we need much more sophisticated means to analyse policy options. Having agreed, or disagreed, about some broad objectives, we need to know whether the instruments, including structure, which we propose to adopt are in fact appropriate. Has the Council for National Academic Awards stimulated or stifled creativity in course design and curriculum? Has the binary corollary promoted or stigmatized non-university practices and values? What is the trade-off between widely dispersed, and so accessible, higher education which may also be weakly supported in academic terms, and concentrated, and so academically strong, higher education which may therefore be relatively inaccessible? On these and many other questions we need analysis but are offered only opinions.

Third, any reformed structure of higher education must be post-binary rather than pre-binary. In the case of the universities a final break must be made with the traditional view of universities as a private collection of homogeneous institutions. That has not been true since the early 1960s, if ever was. In the case of the non-university sector it must be recognized that whatever differences of emphasis there are between what, very unfairly, can be called NABites and CDFites, both have a common pride in the achievements of the polytechnics and colleges since 1965. There can be no going back to a time when they were almost an afterthought in a university-dominated system. These two ideas, a more heterodox university tradition and the presence of strong and confident "non-university" values within higher education, could become the cornerstones of a post-binary system for the next century.

Laurie Taylor



Right gentlemen. Item 16. The Observer. Professor Divett, I see your name is down against this item. Would you care to open the discussion?

Thank you, sir. I don't think that need to take up a disproportionate amount of time, that is to say "disproportionate" when measured against other items on the agenda.

Quite so. Professor Divett. Perhaps we could now move to the meat... the kernel... of your argument.

Certainly, vice-chancellor. What concerns me, and what I believe should concern us all, is our position in the recently published *Observer Guide to Universities*. It is, I understand, somewhat flattering to be placed seventh out of eight in the category, "top trend-setting campuses", but what seems to me to demand our immediate attention is the bracketed word which appears immediately after our entry. I am referring, sir, to the word, "slipping". May I hope, sir, that no effort will be spared to ensure that such "slipping" is halted, lest, and I am forced to speak frankly, lest we find ourselves in subsequent years consigned to the list entitled: "last ditch provincials".

Well, thank you, Professor Divett. You have, I believe, raised an important issue. May we have any other comments on this matter?

Sir?

Yes, Professor Bunker.

Sir, I don't really share Professor Divett's pessimism in this matter. I agree that it is unfortunate that we appear as "slipping" in the "top trend-setting" *Observer* list, but might I draw attention to our fourth place in the Daily Express's "Rarin to go redricks" league table. There is no mention here of "slipping".

That's all very well, sir...

Yes, Professor Irons?

That's all very well, sir, but I'm afraid it does little overall to counter the inevitable impression which will accrue from our being labelled, "This year's knock-down bargain". In the university guide recently compiled by *Exchange and Mart*.

Ah, Professor Sandblaster. You have a comment? Some constructive suggestion, perhaps, for improving our relative standing in these various publications?

I believe, sir, that we must direct ourselves to those areas over which we may be said to exercise some control. It seems, for example, somewhat pointless to attempt to counteract our third place in *New Society's* list of "top ramshackle campuses", or indeed make any great change in our sixth place in *Amabel's* "quodding duns" league table. But there are other criteria to which interviewers might have their attention drawn, where careful selection might actually produce a significant shift in our placement for subsequent years.

Have you a particular area in mind, Professor Sandblaster?

Well, it's only a suggestion, sir, but I did think that we could with a little more effort improve our fifth position in this year's *Sun* "campus guide". That's the one which appeared yesterday, sir. Under the headline, "Who took the sex out of Essex".

Yes, Professor Sandblaster. I recall it. And we are all grateful to you for the constructive note which you have sounded. Perhaps we might now consider acting in the manner you suggest by proposing to respective admissions committees that they now place slightly greater emphasis, and I think "slightly" is probably the right word here, "slightly" greater emphasis in their actual interviews upon big tits. Right. Item 17.

The Times Higher Education Supplement

October 8, 1982 No 518 Price 45p

NAB recommends reprieves in rival package of cuts

by Patricia Santinelli
 The National Advisory Body is to be asked to put forward an alternative plan for teacher education which could reprieve at least three of the colleges on the Government's list of closures.

The NAB board decided at its meeting in Oxford last weekend that there was a strong case for teacher training to be retained at City of Liverpool College, Leicester Polytechnic and at one of Thames, North London or North-East London polytechnics.

In the case of Liverpool College, the board felt strongly that it should have an initial teacher training intake for 1983. This was because the loss of teacher education threatened its diversified work and because not enough thought consideration, had been given to overlapping work between the college and the polytechnic which could lead to an eventual merger.

The board felt unable to recommend that teacher training should continue at all three threatened London polytechnics, Thames, North London and North-East London because it believed that preliminary proposals to allow two of these an intake of 40 primary BED places each were not viable. Instead it has proposed 80 places should be allocated to one of them.

Leicester Polytechnic, the board believes, should remain a teacher education centre with 100 mostly BED places mainly in multicultural studies and arts.

The board has also decided that Newcastle Polytechnic should become a teacher education centre for the north-east of England and have 100 extra mainly secondary places. It believes the radical alternative of concentrating provision on New College, Durham, one of the difficulties, institutions, would create difficulties.

Part-timers weighed up

The National Advisory Body is to be asked to support a plan giving more weight to part-time and evening students in polytechnics and colleges in the distribution of next year's advanced further education pool.

The NAB board decided at its meeting in Oxford last Sunday to recommend to the top-tier committee that in the calculation of the 1983/84 pool part-time students should be weighted as 0.4 of a full-time rather than .35 as at present, and evening students as 0.2 instead of 0.15.

The board took this decision on the strength of a report from its joint technical group which NAB shares with the pooling committee. The pooling committee, however, has taken a different view and is recommending that no change should be made in the weighting formula, at least not for next year.

Members of the board, strongly supported by Mr John Bevan, NAB's secretary, argued that the importance of part-time courses had not been sufficiently recognized in the existing formula. The pooling committee argues that this shift towards part-time is technically complex and not yet supported by a full survey of the impact of such a change.

Whatever the final outcome, no extra money will be available. Any change in the formula will merely redistribute resources from full-time to part-time work.

Letters to all polytechnics and colleges, and to their local authorities, asking them to indicate their priorities within a 44 broad programme areas have been sent out by the NAB this week. These college plans which will be based on the assumption of a 10 per cent cut in income will be considered by NAB when it draws up plans for the year after next, 1984/85.

The shift to part-time work, the letter to institutions, and a report on NAB's first six months, formed the formal agenda of the board meeting. However board members spent a day and a half in more informal discussions.

They heard speeches by Mr William Waldegrave, under secretary at the Department of Education and Science, and from Mr Christopher Ball, chairman of the NAB board.

They also split into three discussion groups to consider three issues that are likely to bulk large on the board agenda over the winter - a research policy for the polytechnics and colleges, how to assess quality, and the best form of regional structure for the non-university sector.

Heriot Watt University has been presented with a fountain by the Constance Fund, which commissions and donates works of art. The Cippico Fountain, named after the talented sculptor who was one of the driving forces behind the fund, Countess May Cippico, was unveiled by the Countess of Mansfield, in the presence of sculptor, Mr James Butler.



Heriot Watt University has been presented with a fountain by the Constance Fund, which commissions and donates works of art. The Cippico Fountain, named after the talented sculptor who was one of the driving forces behind the fund, Countess May Cippico, was unveiled by the Countess of Mansfield, in the presence of sculptor, Mr James Butler.

Sir Keith stands firm on funding policy

by David Jobbins
 Sir Keith Joseph, the Secretary of State for Education, remains resolutely committed to a fundamental move away from state funding of the universities despite the official shelving of the Think Tank report on the Prime Minister's orders.

He told the Conservative Party conference in Brighton this week: "We do not relish the extent to which higher education has become dependent on the taxpayer. I suspect that the universities regret it also."

But he put on record the Government's recognition that the well-maintained research base on which scientific research depended was under pressure, although he added: "I am glad to say we have been able up to now to keep the science budget within a whisker of stability in real terms."

Sir Keith's remarks offered no comfort to the vice chancellors who this week publicly outlined the seriousness of their financial plight largely because of the knock-on effect of this year's salary settlements outside the 4 per cent allowed for by ministers.

Their chairman, Dr Albert Sloman, vice-chancellor of Essex University, warned Sir Keith that unless the Government provided adequate funds the universities would be unable to cope even with the reduced level of activity demanded.

They said a £45m deficit because of the salary settlements and other factors, and Dr Sloman wrote: "We have no other sources of income on which we can draw." No significant reserves remained and overseas students fees had already been fully taken into account.

"So to the extent that grants are not correspondingly increased we shall be bound to shed staff and reduce our activities by even more than the Government had intended."

But student leaders were more fearful of Sir Keith's remarks when he departed from his text and picked up a reference by Lord Beloff earlier in the debate to the need to cease funding 300 sabbatical officers and divert the annual cost of £1.5m to "under-endowed" parts of the education system.

Sir Keith referred to "unfinished business" in connection with university and polytechnic student unions and National Union of Students officials who he said he planned to clampdown on.

Sir Keith told the conference a continued shift towards science and technology and away from liberal studies was "sensible" but he added: "Universities are not just for knowledge provided for the economy."

Lord Beloff, former principal of the independent University College at Buckingham, said there should have been "firmer guidelines" to ensure that spending cuts did not fall heavily on university education which was most directly related to the health of industry and the economy generally.

"It is no good expecting vice chancellors to be resolute. They are not a resolute body of men. It is for ministers to be resolute."

Poly lecturers claim parity

Pay parity between a key group of polytechnic lecturers and their counterparts in the universities is a main plank of the 1983 salaries claim drafted by union leaders.

The National Association of Teachers in Further and Higher Education says that university staff at the top of the lecturer scale have a 5.4 per cent advantage over public sector staff at the top of the senior lecturer scale despite this year's pay awards which narrowed the differential.

Its executive says that as part of next year's claim the union should press for an extra incremental point at the top of the senior lecturer grade to establish parity.

The main recommendation from the executive, which will be put to a special conference of the union on December 4, is that the living standards of the 74,000 members in polytechnics and colleges should be maintained, in line with the TUC's public sector pay strategy.

To improve the promotion prospects of 13,500 college lecturers stuck at the top of the Lecturer 1 scale, the executive recommends a call for automatic transfer to the Lecturer 2 scale.

But union leaders have rejected two alternative pay strategies, for a 19 per cent or a flat rate increase, because they clash with the TUC's proposals or threaten unity among the membership.

General secretary Mr Peter Dawson rejected the 3.5 per cent cash limit announced by the Treasury for salary awards next year as unacceptable and the Association of University Teachers called for an emergency meeting of the TUC's public services committee.

The AUT fears it will be singled out once more for a harsher application of the cash limit policy than other groups of public employees. In recognition of the importance of the health service dispute it has donated £1000 to the TUC dispute fund.

Leader, back page

Yes, Professor Sandblaster. I recall it. And we are all grateful to you for the constructive note which you have sounded. Perhaps we might now consider acting in the manner you suggest by proposing to respective admissions committees that they now place slightly greater emphasis, and I think "slightly" is probably the right word here, "slightly" greater emphasis in their actual interviews upon big tits. Right. Item 17.

Northern Irish heads called for interviews

by Karen Gold
 The heads of the two Northern Irish institutions which will form the new "polyversity" have been invited to London later this month for informal interviews to decide on a vice-chancellor designate.

Dr William Cockerott, vice-chancellor of the New University of Ulster and Mr Derek Birley, rector of Ulster Polytechnic, have been sent letters from the steering group overseeing the merger inviting them to separate informal talks on October 21. London later this month for informal interviews to decide on a vice-chancellor designate.

Dr William Cockerott, vice-chancellor of the New University of Ulster and Mr Derek Birley, rector of Ulster Polytechnic, have been sent letters from the steering group overseeing the merger inviting them to separate informal talks on October 21. London later this month for informal interviews to decide on a vice-chancellor designate.

Peter David on Harvard, 8
Alan Ryan on John Rawls, 18
Chamberlain and Gobineau, 10

Northern Irish heads called for interviews

group to the minister about filling the post was expected to follow them. The invitations come as the newest member of the steering group, Sir Charles Carter, threatened to resign over Government interference in its workings, of which the most visible instance was Northern Ireland

recommending to the steering group to the minister about filling the post was expected to follow them. The invitations come as the newest member of the steering group, Sir Charles Carter, threatened to resign over Government interference in its workings, of which the most visible instance was Northern Ireland

continued on page 2

Ball back in Bristol's court

by Karen Gold

A constitutional crisis looms at Bristol University, after a court committee decided to hand back to the university responsibility for the fate of its threatened architecture department.

The committee was set up after Bristol's council and court failed to agree over whether the department should close. But with the decision now passed to the university's three official bodies - senate, council and court - a row seems likely over who holds the final authority.

Both the Association of University Teachers, which opposes the closure, and the university - which, in the bodies of the senate and council this year approved it - have taken legal advice on the status of the three bodies.

The advice is conflicting. According to the AUT, counsel told the union that the court, which includes people outside the university representing local and national cultural, professional and political interests, is the final arbiter.

Lawyers consulted by Bristol have said that the council, as advised by senate, is the university's executive body, and the court only has the power to arbitrate between them.

By implication the court has already disagreed with senate and council, in refusing to accept their recommendations for the department's closure - proposed originally by Bristol's vice-chancellor Sir Alec Mettrick as part of a plan to close four departments to meet last year's Government spending cuts - and setting up a committee to consider the question instead.

But the university said that if the court and council disagreed again, the council as the executive body would implement its decision regardless. The AUT, however, would be likely to challenge such action; it would consider going through the courts or even to the Privy Council acting for the Queen as Bristol's visitor.

Local and national AUT representatives were discussing their position this week.

Architecture department head Mr Michael Burton said that the school

took a different view of its possible future to that of the court committee, and would publish its own response shortly.

Faculty committees at Bristol, the first of which was meeting today, will have a chance to discuss the committee's report. It will come before senate on October 25 and council on November 11, before going to court in December.

Its main recommendation is ambiguous. It says: "It is for the university itself to decide whether to close the department of architecture or continue it". If the department were to continue, the report concludes, "an outstanding professorial head of department would have to be appointed (and this might be difficult to achieve). Appropriate and adequate staffing of the new department... would not be achievable through reliance on natural wastage alone... There would have to be strong commitment to the new department from the whole of the university... There would be a financial cost to the university, estimated to amount to £300,000 per annum."

Selective allocation policy for London

by Ngaio Crequer

London University schools will be told in the next two days of a new highly selective policy of allocating the court grant.

The policy is based on an assessment of research income and a re-adjustment on unit costs. Queen Elizabeth College, for example, with high research income and low unit costs, will receive a much bigger grant, whereas University College, with high research and also high costs, will fare less well.

Court will assume that 25 per cent of a school's income is spent on research. The University Grants Committee has given London an extra 290 student places and £700,000 in grant.

Schools actively negotiating a merger, or merely considering it, will be firmly pushed in that direction, with financial penalties suffered by the host universities if they fail to take place. This refers to Kings and QEC which are reunifying, and which are talking informally to Chelsea, and

Queen Mary College and Westfield. Westfield has already transferred physics and chemistry to QMC but made a bid, which is likely to fail, to keep biology.

There will also be a further study of rationalization within subjects, with staff transferring from one college to another. First subjects to be examined will be mathematics, physics, the arts, Italian, philosophy and classics. Language studies with small numbers will be protected. So will medicine although there will be a big redistribution of funds between the postgraduate medical institutions.

A report commissioned by the Association of University Teachers from Arthur Andersen, accountants, recommends that London University should sell the site currently used by the Committee of Vice-Chancellors and Principals.

It is understood that this is one of four sites the accountants suggest should be disposed of to provide extra income to stave off redundancies.

British biotechnology funding 'not enough'

by Jon Turney
Science Correspondent

The Government's support for biotechnology compares unfavourably with other industrial nations according to a new report from the Organization for Economic Cooperation and Development.

The report, by three British academics, says that if biotechnology is to contribute to economic and social well-being, academic staff and resources must be sustained. The authors say the United States, France, Germany and Japan "have taken this issue seriously".

Without naming Britain, they add that reductions in government support in some countries have left academic scientists trying to get others to support their work.

The authors are professors Alan Bull of Kent University, Geoffrey Holt of the Polytechnic of Central London, and Malcolm Lilly of University College, London. They go on to say that high research costs and the need for interdisciplinary work have been overcome in many countries by concentrating on a few centres, a trend which has also been absent in Britain.

The OECD report emphasizes that enthusiasm for biotechnology must be tempered by an appreciation of the constraints to be overcome. Techni-

cal and economic barriers often stand in the way of success.

It also stresses that Government education and research policies will be equally important. Education and labour force planning must start now to meet the needs of the new field, the report suggests. It notes there are already slings of a brain drain from some countries.

In Britain concern about a biotechnology brain drain has prompted the Science and Engineering Research Council to commission a study of the number of biotechnologists leaving the country.

The SERC announced last week it had awarded a contract to the Institute of Manpower Studies at Sussex University to assess the loss of biotechnologists and establish the impact of this on the economy.

The SERC's biotechnology directorate has asked anyone who knows biotechnologists who have left or plan to leave the country to notify them.

There is particular concern that the agricultural genetics company soon to be set up by the British Technology group and the Agricultural Research Council may have difficulty competing with American companies for staff.

Biotechnology - International Trends and Perspectives, Paris, OECD, 1982.



Ricky Burrell, a third-year student of sports science at the Chelsea School of Human Movement, is captain of the English men's swimming team at the Commonwealth Games in Brisbane. He recently won the British record for 100 metres freestyle at the National Championships at Crystal Palace.

UGC expands primary provision

The University Grants Committee will earmark funds for the expansion of primary teacher training when it allocates the universities' recurrent grants for 1982-83.

Dr Edward Parkes, chairman of the UGC, has written to the vice chancellors of the 12 to 15 universities which offered to increase their output of primary trained teachers. He informed them of their target figures until the end of the decade and asked for them to be confirmed.

"The committee proposes to review these targets in the spring and I would therefore like to know of any modifications by the end of this year. Account will be taken of the increased targets when the committee allocates student numbers and recurrent grants from 1984-85", the letter says.

The expansion of primary training in universities follows the Government's decision to raise the number of primary teachers to meet the needs of schools at the end of the decade. Universities have been allocated 1,000 postgraduate primary training places.

In a separate letter relating to the Government cuts in secondary teacher training, Dr Parkes advises the 27 university departments of education not to confirm offers of places until the beginning of November.

This is so that university departments of education can decide how to allocate their target numbers within different subjects.

But the tone of Dr Parkes's letter is different from the Department of Education which planned to tell universities how many places they should accept.

Cuts could lead to legal problems

Stirling University principal, Sir Kenneth Alexander, is understood to have warned education secretary, Sir Keith Joseph, that unless Stirling's 23 per cent cut is reduced, the university faces legal difficulties over potential compulsory redundancies.

Tenure is strong at Stirling and only nine of the 250 academic staff qualify for early retirement. Five have opted for early retirement and two for voluntary severance.

Stirling, which managed to make half of its require savings last year, is not likely to face compulsory redundancies this academic session, but there may be difficulties after that.

Sir Kenneth, known to be a defender of tenure, is thought to have pointed out to Sir Keith that it is inconsistent of the Government to impose cuts which universities cannot implement because of tenure.

Sir Keith's reply makes it clear that the Government has no intention of providing more money.

OU's office in America to close

The British Open University Foundation, which was to take the OU into America's lucrative education market, is to close at the end of the year.

The university's council took the decision last week. The foundation, whose budget is £100,000 a year, failed to meet its deadline for raising more money for collaboration on new courses.

The deadline passed in July and although the foundation hopes to announce a joint effort with Nebraska University shortly, it has come too late to save the foundation. The OU's American office, established in 1973, was the OU's American office. The foundation was headed by the then vice-chancellor Lord Perry as an opportunity to make the OU profitable. It was given its new title in 1977.

Only four universities, with at least 2,000 students, began distance learning and collaborative programmes with the office. Three of those failed.

According to the director of the OU's Oxford research unit, Dr David Blackburn, who has administered it sporadically, the foundation had realized that marketing courses were impractical so the emphasis moved to collaboration in creating them which, it hoped, would reduce costs.

ACACE fights for survival

The Advisory Council for Adult and Continuing Education is appealing to its clients to devise a new role and fight for its future before its life runs out next autumn.

At its meeting last week, the council threw out a paper asking the Government to give it new development powers in addition to its advisory status, as well as a tenfold budget increase to £1.5m and an increase in staff.

This would create a new council to take over from the present one which finishes next October, as the

Department of Education and Science has said it is unlikely to renew it. Current DES thinking insists that the council's only hope of a future is to find an area not already covered by bodies such as the Manpower Services Commission or the Department for Further Education, Unit.

ACACE members have therefore decided to contact adult education workers in local authorities, the private sector, broadcasting and universities to ask how they see the Council's future role and what pressure they would be prepared to put on ministers to retain it.

The District Audit Inspectorate has been told by the Department of the Environment to broaden its role from simply checking the books to investigating and advising on ways of saving money. It recently reported on how colleges of higher and further education could improve their productivity and proposed tighter budget controls.

Mr Brian Griffiths, one of the consultants, and a former finance officer at Birmingham Polytechnic, said he believed the Inspectorate had called in a private firm because of staff shortages. In addition their regional base meant they might have been uneven and patchy approach had they tried to do it themselves.

There was an air of uncertainty and suspicion about what we were doing at some of the polytechnics but once people realized we were on a genuine fact-finding mission everyone cooperated," he said.

The Government is likely to be anxious to avoid another controversy following the resignation of Dr Peter Fricker last month.

Team scrutinizes polytechnic costs

A team of management consultants has been looking at the cost efficiency of a small group of polytechnics. The three consultants, from Price Waterhouse, are currently working for the District Audit Inspectorate.

The six were chosen to provide a spectrum from large to small institutions. The team will present a draft report by the end of the year.

The District Audit Inspectorate has been told by the Department of the Environment to broaden its role from simply checking the books to investigating and advising on ways of saving money. It recently reported on how colleges of higher and further education could improve their productivity and proposed tighter budget controls.

Mr Brian Griffiths, one of the consultants, and a former finance officer at Birmingham Polytechnic, said he believed the Inspectorate had called in a private firm because of staff shortages. In addition their regional base meant they might have been uneven and patchy approach had they tried to do it themselves.

There was an air of uncertainty and suspicion about what we were doing at some of the polytechnics but once people realized we were on a genuine fact-finding mission everyone cooperated," he said.

News in brief

Launch of national education week

TUC leaders will discuss next week how to step up the campaign against education cuts, as thousands of lecturers, students and other staff take part in National Education Week.

The week is the first nationwide manifestation of the TUC-backed Education Alliance, which draws together unions and education pressure groups with an interest in the expansion of public sector education.

A report commissioned by the Association of University Teachers from Arthur Andersen, accountants, recommends that London University should sell the site currently used by the Committee of Vice-Chancellors and Principals.

It is understood that this is one of four sites the accountants suggest should be disposed of to provide extra income to stave off redundancies.

Britain loses heart project to America

by Olga Wojtas
Scottish Correspondent

An Edinburgh University academic has condemned the "obstruction and neglect" of Government agencies which delayed the development of his research on heart valves and has resulted in an American firm taking over the project.

Dr Norman Macleod of Edinburgh's chemical engineering department said: "I would say categorically that no country in the world would have given me better support and encouragement for my research than the UK and in particular Scotland. But when it comes to the commercialization and exploitation of research you run into an absolute brick wall."

Dr Macleod and his research team have been working for some 15 years

on a new type of heart valve, which they hope will reduce blood clotting, at present a major problem. It is likely it can be produced much more cheaply than existing valves.

"I approached the National Research Development Council whose function is to seek out inventions in university and government laboratories, commercialize these and service the patents," he said.

"The NRDC behaved shamefully and with extreme lack of responsibility because not only did it take no effective steps to commercialize the invention, but it very nearly lost the patent, which would have been the end of it all," he added.

Edinburgh University bought back the patent, and a London company became interested in developing the device. However, since it had little experience in medical development,

it asked the Department of Health and Social Security to underwrite £20,000 of the research costs.

"The DHSS stood to gain a great deal from the valve being made in this country, since it spends millions of pounds each year in purchasing them from the United States," said Dr Macleod. "But it sat on the request and made no further response for over a year, refusing even to answer letters, and the firm just walked away from the proposition."

The project has now been taken over by a Californian company, and clinical trials of the valve are expected to take place within the next few months.

The company is seeking help from the Scottish Development Agency to set up a factory to produce the valves in Scotland, so it has the benefit of Dr Macleod's expertise.

But although this would create a number of jobs here, profits would return to the United States.

"You just can't think about the amount of suffering that has gone on which might have been alleviated," said Mr Macleod. "I was on *Tomorrow's World* some years ago, and received letters from people all over Britain asking when the valve would be available, giving harrowing accounts of unsuccessful heart valve operations."

Mr John Akker, deputy general secretary of the Association of University Teachers, said Dr Macleod's case was by no means exceptional. There were hundreds of complaints from academic inventors that the Government and NRDC "are hopeless at seeing what is going to be a money spinner".

Lecturers protest at longer hours

by David Jobbins

A deputation from the college lecturers' union met leaders of Manchester City Council this week to protest at the longer class contact hours being imposed on new staff.

They fear that new conditions of service will also apply to existing staff who are promoted.

Manchester tried to save £400,000 on its further education budget by increasing class contact hours of all its lecturers except Lecturers 1 and polytechnic staff to the levels laid down by the national agreement.

When the National Association of Teachers in Further and Higher Education refused to negotiate away its local agreement the authority dismissed almost 600 lecturers and

offered to re-employ them on contracts embodying the longer class contact hours.

But Natfhe went into dispute with the Labour-controlled authority which eventually backed down and agreed to a cost-saving exercise by college management with the co-operation of the union.

Mr Neil Hampson, secretary of the Manchester liaison committee said: "For most people promotion would not be worth it. It would mean extra responsibilities with no more time enjoyed to fulfil them."

Barely 100 of the almost 600 staff who faced the sack earlier this summer are said to have accepted the new terms of employment before the threat was withdrawn, although city officers say the figure is higher.

Postgraduate report challenged

University engineering professors have challenged the analysis of research needs set out in the Swinerton-Dyer report on postgraduate education.

They say the report, published in April, took no account of differences between subjects which lead to wealth-creating careers and those which are mainly wealth-consuming. It also failed to compare British and foreign postgraduate education, they claim.

The professors point out that the report makes no comment on the consequences for industry and for engineering teaching of the decline in the number of British engineering graduates going on to do research.

The criticisms are made in a comment on research aspects of the Swinerton-Dyer report sent to the Secretary of State for Education by the research working party of the engineering professions conference.

The document also says that the value of engineering studentships must be increased, although the Swinerton-Dyer working party rejected this proposal. It asks for exemptions in the use of contracted assistants who would do teaching and research.

The professors suggest the main issues in engineering research are a too heavy reliance on overseas postgraduate students and the use of science as a model. This reduces the value of engineering research as a preparation for work in industry, they argue.

They point out that the size of the decline in research numbers in engineering is masked in the report by taking science and engineering students as a group. Between 1974-5 and 1979-80, the proportion of engineering students in the group only fell by 1 per cent, but the research numbers in engineering alone dropped by 18 per cent over the same period.

The professors note, there is no indication in the report's conclusions that statements from the engineering institutions, which highlighted weaknesses of the present system, had been considered.

Average book costs £13.93

The price of academic books has risen by 55 per cent over the last five years to an average of £13.93, according to the latest figures from the Centre for Library and Information Management at the University of Loughborough. Over the same period the proportion of books costing under £5 has dropped from 57 per cent to 37 per cent.

The statistics just released cover prices for the first half of 1982. The most expensive books by subject were those on printing and the book trade where the average price was £48.39 followed by chemistry at £27.67.

Books on occultism and psychical phenomena accounted for the cheapest average price.

Prices of books on general science, physics, chemistry, biology, botany, zoology and medicine averaged at between £20 and £27 while those on history, literature, music, and geography at between £9 and £14.

Average prices of all books rose during 1974 to 1981 from £4.59 to £12.16 with language books going up from £3.72 to £11.09 over the period. Pure science from £7.12 to £18.51; geography and history from £3.86 to £9.04 and technology from £5.17 to £16.78.

Right gets new journal

A new quarterly magazine of conservative thought, *The Salisbury Review*, is launched this week.

The Salisbury Group, the magazine's publisher, was formed in 1976 in recognition of the need for "articulate doctrine" on the political and cultural right. Though named after the nineteenth-century Conservative Prime Minister, Lord Salisbury, the group and *The Salisbury Review* have no official ties with the Conservative Party. Their aim is to demonstrate that there is more to conservatism than economic policy and to confront what is seen as a liberal consensus.

To that end, the first issue of *The Salisbury Review* contains articles by David J. Levy "on being Right"; by Roger Scruton, one of the magazine's editors, on E. P. Thompson; by Enoch Powell on "Our Loss of Sovereignty"; and, perhaps most controversially, by John Casey, who recommends a "full-scale and, if necessary, involuntary repatriation of West Indian and Asian immigrants."

The editors argue that the prevailing liberal consensus is "inimical to the accurate representation of political thought and practice" and that the need to appear and sound liberal has prevented practical effort on many major social problems. "Conservatism is easier done than said," say the editors, and *The Salisbury Review* is aimed at a more precise articulation of right-wing ideas and ideals.

An invitation from twenty-two
AMERICAN UNIVERSITY PRESSES
at **HEFFERS** in **CAMBRIDGE**
to a major display of books by scholars
from all over the world.
13-30 October 1982
CALIFORNIA · CHICAGO · COLUMBIA · CORNELL
HARVARD · JOHNS HOPKINS · ILLINOIS · LOUISIANA
MISSOURI · MIT · NEBRASKA · NEW ENGLAND
NORTH CAROLINA · NOTRE DAME · OHIO
PENNSYLVANIA · PRINCETON · TEXAS
WASHINGTON · WISCONSIN · SUNY · YALE
The bookshop with the books
HEFFERS BOOKSELLERS
20 Trinity Street, Cambridge

Colleges asked to protest

by Patricia Santinelli

Colleges which have been offered extra teacher training places are to be asked to refuse them as part of a protest at proposed closures in other institutions.

The action committee of North East London Polytechnic whose teacher education is threatened with closure, is to ask all colleges to mobilize their forces against what it calls the Government's "divide and rule" policy.

The committee, was holding a public meeting this week and is adamant that all colleges not just those threatened with closure, should unite in fighting because it believes the cuts in other institutions will cost hundreds of jobs as well.

It argues that neither closures nor the cuts are necessary. By its calculations the number of teacher training places by the late 1980s will be almost the same as in 1977. It believes the current Department of Education and Science rationalization of teacher training is only a forerunner of future exercises for purely political reasons.

Both their fears and that of many institutions under threat are fuelled by recent reports that Her Majesty's Inspectorate in the regions are outraged at the decision to close teacher training at so many institutions.

This view is shared in the university sector. Professor Ted Wragg, professor of education at Exeter University said that the DES plans were the most breathtaking and catastrophic reorganization of teacher training that had ever taken place.

"The secondary BEU is being slaughtered and it is completely foolish. Its dismantlement and its reduction to so few subjects will mean the total loss of flexibility and the loss of teachers who are able to teach more than one subject at a time when schools will be in great need of them," he said.

Institutions on the list are continuing to fight their case and have rallied support. North Cheshire, formerly Padgate College has sought the help of Mr Mark Carlisle, MP for Runcorn and

the former secretary of state for education, who helped to secure the retention of teacher training at the college in 1977.

In a meeting with senior staff at the college, Mr Carlisle said he had not changed his view that Padgate College should play a substantial role in teacher training as part of a college of higher education servicing two new towns. He said he would press the case for its retention with ministers.

De La Salle, one of the voluntary colleges likely to close, is being supported by the Catholic Education Council. The Council is having talks with the DES over the loss of some 180 places in the sector as a whole. Its argument is that the normal 9.3 per cent share usually allocated in Catholic colleges must be reinstated. This of course affects the other Roman Catholic college under threat, Newman.

New College, Durham's, schools' college consultative committee has written to the secretary of state for education to say that his decision to discontinue teacher training at the college is unjustifiable.

The committee argues that plans to increase the number of teachers trained by the Post Graduate Certificate of Education is ill conceived as even the best trained students via this route are ill equipped to deal effectively with both primary children and the less able secondary pupils.

It points out that the revised BEU honours course recently submitted by the college was designed to develop those professional skills and academic qualities which are required of teachers in primary and secondary schools. To propose its discontinuation it says is to misunderstand the nature of teacher training and the needs of schools.

The University of Nottingham, which validates Bishop Grosseteste College qualifications has written to Sir Keith Joseph to say that the loss of such an active training centre for primary school teachers is worrying. The loss would also have a bad effect on in-service provision in the region.

New figures show 11.3% of graduates jobless

by Sandra Hempel

More than 12 per cent of last year's male graduates and nearly 10 per cent of female graduates were unemployed at the end of 1981, compared with 9.5 per cent and 8.1 per cent respectively the previous year, according to the University Grants Committee.

Graduates of 1980-81 were more than twice as likely to be unemployed six months after graduation as 1978-79 graduates, the UGC says. The number of home graduates was up by 3 per cent last year with women comprising 39 per cent of the total, while overseas graduates were up by 8 per cent.

The statistics, contained in the survey *First Destinations of University Graduates 1980-81*, show rises of over 7 per cent in the numbers of home graduates in chemical, electrical and production engineering, zoology, mathematics and computer science, combined sciences, business management studies, government and public administration and art and design.

The UGC says that 30.1 per cent of all home first degree graduates in 1980-81 went into further education or training, with 49.5 per cent taking up permanent UK employment and 11.3 per cent believed unemployed.

By subject the largest group believed unemployed were agriculture, forestry and veterinary science students with 14.6 per cent, followed by arts other than languages, 14.3 per cent and biological and physical sciences, 14.2 per cent. Over 95 per

State aided system 'still threatened'

by Olga Wojtas

Reports that the Prime Minister had thrown out proposals to privatise higher education were only a "partial setback" for Treasury plans, the Association of University Teachers warned this week.

Mr John Akker was speaking at the opening of an AUT regional office in Edinburgh, which will help local branches in Scotland and north east England to fight redundancies and set up the campaign for improved access to higher education. The AUT already has a regional office in Manchester.

Mr Akker said the cuts proposed by the Think Tank would have meant the closure of 24 higher education institutions, five of these in Scotland.

Student numbers would have been reduced by around 120,000. The AUT understood that although the Think Tank proposals were not being considered by the Cabinet, the Treasury had not dropped plans to reduce the education budget.

University teachers had already been singled out for rigorous application of next year's 3½ per cent pay limit, although they had probably had the lowest settlement in the public sector last year of 5 per cent, Mr Akker said. The AUT had asked for an emergency meeting of the TUC public services committee to examine the strategy to resist the pay limit.

Although the Think Tank had proposed cutting higher education funding and the National Health Service, everyone's attention had been on the latter.

"It is important that people think the NHS and education are both essential," said Mr Akker. "We must explain about higher education so that people can see it is part of the economic and social regeneration of this country."

Three weeks ago, the AUT launched an advertising campaign on public transport in London and Manchester saying "Britain needs its universities". Mr Akker said it hoped to extend the campaign to Scotland soon.

Within the campaign's first week, the AUT had had more than 100 inquiries from people wishing to support them, he added. They were being encouraged to write to their MPs asking whether they were in favour of the Government cutbacks, and to supply AUT badges and car stickers.

As a result of the increased subscription, the AUT now has about £12m to employ legal advice and accountants if universities attempt to impose compulsory redundancies.

But Dr Ron Emanuel, the AUT's junior vice president, said this was a last resort. "The AUT and the university authorities should be trying to get together to approach the Government on the matter of cuts, and I hope this year that will happen," he said.

"It is quite appalling that young people are coming up from schools who last year and the year before would have been accepted, and would have got good degrees and are now being turned away," he added.

Mr David Bleiman, the AUT's new regional official, and former general secretary of the Scottish Further Education Association, said young people were being hounded by Government schemes which were designed to keep unemployment figures as low as possible.

State aided system 'still threatened'

by Olga Wojtas

Reports that the Prime Minister had thrown out proposals to privatise higher education were only a "partial setback" for Treasury plans, the Association of University Teachers warned this week.

Mr John Akker was speaking at the opening of an AUT regional office in Edinburgh, which will help local branches in Scotland and north east England to fight redundancies and set up the campaign for improved access to higher education. The AUT already has a regional office in Manchester.

Mr Akker said the cuts proposed by the Think Tank would have meant the closure of 24 higher education institutions, five of these in Scotland.

Student numbers would have been reduced by around 120,000. The AUT understood that although the Think Tank proposals were not being considered by the Cabinet, the Treasury had not dropped plans to reduce the education budget.

University teachers had already been singled out for rigorous application of next year's 3½ per cent pay limit, although they had probably had the lowest settlement in the public sector last year of 5 per cent, Mr Akker said. The AUT had asked for an emergency meeting of the TUC public services committee to examine the strategy to resist the pay limit.

Although the Think Tank had proposed cutting higher education funding and the National Health Service, everyone's attention had been on the latter.

"It is important that people think the NHS and education are both essential," said Mr Akker. "We must explain about higher education so that people can see it is part of the economic and social regeneration of this country."

Three weeks ago, the AUT launched an advertising campaign on public transport in London and Manchester saying "Britain needs its universities". Mr Akker said it hoped to extend the campaign to Scotland soon.

Within the campaign's first week, the AUT had had more than 100 inquiries from people wishing to support them, he added. They were being encouraged to write to their MPs asking whether they were in favour of the Government cutbacks, and to supply AUT badges and car stickers.

As a result of the increased subscription, the AUT now has about £12m to employ legal advice and accountants if universities attempt to impose compulsory redundancies.

But Dr Ron Emanuel, the AUT's junior vice president, said this was a last resort. "The AUT and the university authorities should be trying to get together to approach the Government on the matter of cuts, and I hope this year that will happen," he said.

"It is quite appalling that young people are coming up from schools who last year and the year before would have been accepted, and would have got good degrees and are now being turned away," he added.

Mr David Bleiman, the AUT's new regional official, and former general secretary of the Scottish Further Education Association, said young people were being hounded by Government schemes which were designed to keep unemployment figures as low as possible.

State aided system 'still threatened'

by Olga Wojtas

Reports that the Prime Minister had thrown out proposals to privatise higher education were only a "partial setback" for Treasury plans, the Association of University Teachers warned this week.

Mr John Akker was speaking at the opening of an AUT regional office in Edinburgh, which will help local branches in Scotland and north east England to fight redundancies and set up the campaign for improved access to higher education. The AUT already has a regional office in Manchester.

Mr Akker said the cuts proposed by the Think Tank would have meant the closure of 24 higher education institutions, five of these in Scotland.

Student numbers would have been reduced by around 120,000. The AUT understood that although the Think Tank proposals were not being considered by the Cabinet, the Treasury had not dropped plans to reduce the education budget.

University teachers had already been singled out for rigorous application of next year's 3½ per cent pay limit, although they had probably had the lowest settlement in the public sector last year of 5 per cent, Mr Akker said. The AUT had asked for an emergency meeting of the TUC public services committee to examine the strategy to resist the pay limit.

Although the Think Tank had proposed cutting higher education funding and the National Health Service, everyone's attention had been on the latter.

"It is important that people think the NHS and education are both essential," said Mr Akker. "We must explain about higher education so that people can see it is part of the economic and social regeneration of this country."

Three weeks ago, the AUT launched an advertising campaign on public transport in London and Manchester saying "Britain needs its universities". Mr Akker said it hoped to extend the campaign to Scotland soon.

Within the campaign's first week, the AUT had had more than 100 inquiries from people wishing to support them, he added. They were being encouraged to write to their MPs asking whether they were in favour of the Government cutbacks, and to supply AUT badges and car stickers.

As a result of the increased subscription, the AUT now has about £12m to employ legal advice and accountants if universities attempt to impose compulsory redundancies.

But Dr Ron Emanuel, the AUT's junior vice president, said this was a last resort. "The AUT and the university authorities should be trying to get together to approach the Government on the matter of cuts, and I hope this year that will happen," he said.

"It is quite appalling that young people are coming up from schools who last year and the year before would have been accepted, and would have got good degrees and are now being turned away," he added.

Mr David Bleiman, the AUT's new regional official, and former general secretary of the Scottish Further Education Association, said young people were being hounded by Government schemes which were designed to keep unemployment figures as low as possible.

Students refuse to pay extra

by David Jobbins

Students who refuse to pay a £21 a year "amenity fee" may not be allowed to re-register later in the year. Hull university warned this week.

The university this week was registering students who followed their union advice and failed to pay the fee.

But a spokesman warned: "Our regulations make it plain that students in debt to the university may not be allowed to register again. If students are in debt later in the term not allowing them to register for another term is one of the options open to us."

"It is not a step we would want to take if we can avoid it," he added. The fee was introduced a year ago in the wake of the University Grants Committee cuts in an effort to avoid reducing the level of student services.

Hull calculates that £400,000 a year is spent on the university's careers and appointments, counselling and health services and on its sports centre.

But the union, which has taken legal advice, argues that the university has previously provided the services free and says they are an integral part of the university.

Communications officer Mr Chris Aylott said: "We are quite prepared to cooperate with the university in finding ways of generating income or making economies in administration but we are not represented on the finance development committees."

The union also believes the fee is inequitable because staff, who refused to pay last year, have not been included.



A wistful moment - Andrew Livingston and Jane Thornton in John Godber's *Happy Jack*. The play won the BP Outstanding Production award at the National Student Drama Festival in Hull, and was awarded a *Scotsman* Fringe First at the Edinburgh Festival. It originated at Minshorpe High School and Community College in Yorkshire, where John Godber is head of drama, and can be seen in London at the King's Head in Islington until October 16.

How to be healthy in 12 languages

by Karen Gold

Tea-time viewers, do not adjust your seat! The BBC really is about to broadcast in 12 languages with English subtitles, in the peak early evening slot just after *Nationwide*.

For three weeks in November, the BBC's Continuing Education Unit has booked 90 seconds each Monday to Thursday, for its first programmes made specifically for different groups of British foreign language speakers.

The project has attracted £120,000 from the Health Education Council and the Scottish Health Education Group. They have produced material in different languages from Cantonese to Arabic, Greek to Gujarati, containing basic advice about Britain's health services which would otherwise be almost unobtainable for people with minimal English.

Booklets contain information on eligibility for using the health service, GP and hospital services, dentists and opticians, health and housing, health and work, how to complain and a number of other areas.

Their contents will be advertised in the television programmes, followed by an invitation to viewers to write or telephone in their own language to a BBC support unit which will then send them the booklet free.

At the beginning of next year, the BBC also hopes to pioneer an experiment in computer education—a three-day exhibition linked with the launch of its second stage series of computing programmes, *Making the Most of the Micro*. The exhibition is likely to be in central London, according to the head of BBC continuing education, Miss Sheila Innes, "so people can play with a BBC micro-computer and try out its capabilities".

Information technology is one of four priorities in BBC's continuing education plans for 1983/84, which have just been finalized. The other priorities, Miss Innes says, are programmes for the 16-19 age range, studies of work, unemployment and the economy, and multi-cultural programmes.

Plans for late 1983 and 1984 include at least two new language series: a second stage one on Greek language and culture, and experimental German series for people not usually motivated to learn languages. A series on developing countries begins next February with 10 programmes about India.

Starting a second form of validation from scratch, as the TEC proposed, would be a retrograde step, he added.

Quality control

The quality of education will be the subject of a new policy group set up by the Conservative Party. The group, one of several, will review existing policy and identify priorities for the future.

Union warns of threat to YTS success

The success of the Youth Training Scheme could be threatened unless nationally negotiated schemes are adequately scrutinized, the National Association of Teachers in Further and Higher Education said this week.

Speaking at Radhill Technical College Mr Mick Farley, assistant secretary further education, said training schemes were being negotiated at national level between the Manpower Services Commission and companies without consultation with trade unions.

He said an agreed mechanism to approve national schemes was urgent because the employment secretary supported a proposal for YTS participants to manufacture goods at prices which undercut imports.

He added that at the moment only locally negotiated schemes were likely to be reported to the area manpower board. These included representatives of the trade union movement and so there would be some accountability, albeit minimal.

The Association of County Councils wants government policy statements to make it clear that local education authorities are being forced to provide better services with smaller resources.

This follows protests from local education authorities in the south west which are concerned about demands in four main fields, the 17-plus qualification, the new Youth Training Scheme, the implementation of the Education Act 1981 and micro-technology.

Natfhe issued a booklet this week which it hopes members will use in their campaign to get local authorities to devote adequate resources to further education when they draw up budgets for 1983-84. *Focus on Further Education* stresses the importance of further education to individuals, communities and the economy, and lists six colleges to highlight unique features of the system.

The board says the measures it contemplates for an 8 per cent cut in resources will put the university under strain.

Engineering lecturers defend HND

by Jon Turney

Polytechnic lecturers are campaigning to save Higher National Diplomas in engineering, which are to be phased out in favour of Technician Education Council courses.

Engineering lecturers met Mr William Shelton, under-secretary of state for education to put their case for retaining the HND. A petition with 500 signatures is to be presented to Secretary of State for Education Sir Keith Joseph.

The delegation, led by the secretary of the lecturers' action committee, Dr Dan Merritt of Coventry Polytechnic, told Mr Shelton that the HND and the TEC Higher Diploma scheduled to replace it were different.

They recommended that the TEC diploma should continue to cater for 16+ school leavers, whereas the HND should carry on for the 18+ entry.

Dr Merritt said the action committee understood that 1983 had been fixed as the last year of HND entry. Members had asked for this to be deferred for further discussion.

The committee felt the HND was a valuable course for sixth formers. They could transfer to a full degree course and it was popular with students, lecturers and employers.

It asked Mr Shelton to allow the HND to transfer to the Council for National Academic Awards. It said that attempts by the TEC to accommodate the polytechnics would duplicate CNA work and undermine lower level work of the TEC.

Dr Tony Pointon, national secretary of the Association of Polytechnic Teachers, said that it would be simple to arrange joint validation of a polytechnic HND-type diploma by the CNA.

Starting a second form of validation from scratch, as the TEC proposed, would be a retrograde step, he added.

Resources are dwindling

The uncertain prospect of a "steady state" on resources has been replaced by the certainty of dwindling resources and diminishing numbers, Mr Geoffrey Warnock, vice-chancellor of Oxford University, said in his installation speech this week.

The university was seeking to avoid damage from too rapid a rundown by using reserves over the next three years. During 1981-82, however, the initial cost of 2 per cent appeared by Trinity term to have been more than necessary so that Council decided to reduce the planned cuts for 1982-83 from 3 to 2.5 per cent.

But, he said, the prospect was bleak for 1983-84, as the UGC provision had effectively been cut further, since there was to be no extra money for salaries.

The issue of staff numbers was now a familiar though far from agreeable picture. In the short run, most posts falling vacant had to stay unfilled if substantial short-run savings were to be made.

Oxford's General Board has proposed greater changes to academic staff establishments than those in the

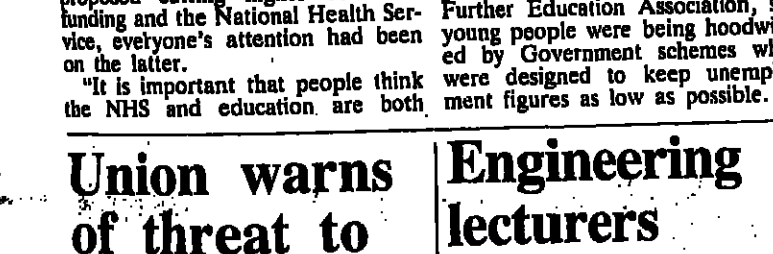
UGC's advice in its Oxford letter in July 1981. A report in the *Oxford University Gazette* says that, with the expected decline in the unit of resources and the likelihood that the teaching resources of colleges will be under strain some protection should be given to facilities and subjects with adverse staffing ratios, either by encouraging a cut in their student load or by going to maintaining the present staff establishment.

The changes were "largely independent of, though not inconsistent with, the UGC's advice".

The board has told the English and law faculties that unless they make the cuts the board is unlikely to be sympathetic to any case for an increase in resources above the set staffing level.

The Ashmolean Museum is asked to report on the effect that an 8 per cent cut in resources from 1983-84 or 1984-85 on the 1980-81 base level.

The board says the measures it contemplates for an 8 per cent cut in resources will put the university under strain.



Joanna Goodburn falls to make an unobtrusive entrance to university life. Her arrival for freshers' week at Edinburgh University was filmed by a BBC television team which last week began six months filming for a six part documentary on Edinburgh University to be shown next spring as the university celebrates its 400th anniversary.

Resources are dwindling

The uncertain prospect of a "steady state" on resources has been replaced by the certainty of dwindling resources and diminishing numbers, Mr Geoffrey Warnock, vice-chancellor of Oxford University, said in his installation speech this week.

The university was seeking to avoid damage from too rapid a rundown by using reserves over the next three years. During 1981-82, however, the initial cost of 2 per cent appeared by Trinity term to have been more than necessary so that Council decided to reduce the planned cuts for 1982-83 from 3 to 2.5 per cent.

But, he said, the prospect was bleak for 1983-84, as the UGC provision had effectively been cut further, since there was to be no extra money for salaries.

The issue of staff numbers was now a familiar though far from agreeable picture. In the short run, most posts falling vacant had to stay unfilled if substantial short-run savings were to be made.

Oxford's General Board has proposed greater changes to academic staff establishments than those in the

UGC's advice in its Oxford letter in July 1981. A report in the *Oxford University Gazette* says that, with the expected decline in the unit of resources and the likelihood that the teaching resources of colleges will be under strain some protection should be given to facilities and subjects with adverse staffing ratios, either by encouraging a cut in their student load or by going to maintaining the present staff establishment.

The changes were "largely independent of, though not inconsistent with, the UGC's advice".

The board has told the English and law faculties that unless they make the cuts the board is unlikely to be sympathetic to any case for an increase in resources above the set staffing level.

The Ashmolean Museum is asked to report on the effect that an 8 per cent cut in resources from 1983-84 or 1984-85 on the 1980-81 base level.

The board says the measures it contemplates for an 8 per cent cut in resources will put the university under strain.

Engineers transfer to new council

The Engineering Council's first policy statement, issued last week, has been welcomed by the engineering institutions and by the Fellowship of Engineering. It now looks as though the transfer of registration of chartered engineers to the new council will go ahead smoothly.

The Engineering Council's royal charter says that it should assume full powers of registration from the Council of Engineering Institutions, the present authority, within two years, that is by November 1983.

The policy statement set a tight timetable for the transfer, suggesting that the CEI board should agree to a postal vote of members for the transfer of the title "chartered engineer" by November this year. The postal vote would follow formal approval by the Privy Council next February, and a six-month period leading to the final transfer in the summer.

Until recently this schedule looked optimistic for both political and logistic reasons. The CEI wanted to see the council's by-laws, which have not been prepared, before agreeing to the transfer. And the postal vote appeared likely to stretch into April, as ballot forms were to be included with journal mailings from the individual institutions, some of which only take place quarterly.

However, these obstacles should now be overcome through the efforts of the engineering institutions. Eight institutions, including the four largest and specialist, issued a statement last week saying that the transfer of registration should go ahead with all possible speed. And the President of the Institution of Civil Engineers, Mr Ian Campbell, indicated that they did not see publication of the by-laws as a pre-condition for transfer.

FCS claims more members

Conservatives claimed this week that their student organization is regaining the level of support it reached in the early days of the Thatcher government.

Recruiting in the first week of the new university year is about 30 per cent up on the same period last year, the chairman of the Federation of Conservative Students, Mr Brian Monteith, said.

This compares with an increase of only 5 per cent last year and a corresponding fall of a similar 30 per cent increase at the start of the 1980-81 academic year—the first session after the Conservatives returned to power.

FCS says there is no evidence that an internal party inquiry into its affairs and the attendant publicity harmed support.

The recruitment returns for the first week of the new term, encouraged Mr Michael Spicer, vice chairman of the Conservative party with special responsibility for FCS, to say: "We are now the largest political organization in the universities."

FCS aims to put its membership record on a firm basis this year. Mr Monteith, who has survived severe criticism in the internal report described the returns as "encouraging".

Among examples he quoted at a press conference at the Conservative Party conference in Brighton was Lancaster, where membership has risen from its total last year of 41 to 69 at the end of last week.

Conservative organizations have been re-established at the University of East Anglia and a new one launched at Queen's University, Belfast, traditionally a preserve of Unionist student organizations.

Hinsley attacks cash planning

The Government's method of cash planning and the prospect of finding £800,000 a year for the Universities Superannuation Scheme meant that an already bad financial situation could become even worse, Professor F. H. Hinsley, vice-chancellor of Cambridge, told Congregation last week.

Professor Hinsley was being installed for his second year of office. If ministers did not recognize the problems and set grants at a level that meant a greater reduction in university funding than originally envisaged, then the university would have to review its programme of planned spending cuts which were supposed to achieve an orderly reduction, he said.

The early retirement scheme for university officers, part of the plan, had been a marked success. Of the 120 officers, 74 per cent had accepted the scheme, and 74 per cent had already retired. This meant that the university had been able to avoid voluntary

or compulsory redundancies and other "desperate measures, such as the closing down of whole courses, departments, or faculties".

Despite a further increase in fees, the number of overseas applications was not noticeably down, and the quality had stayed high. Discussions were under way to try to set up scholarship schemes for students from various countries including Sri Lanka, Bangladesh, Singapore, Malaysia, Mozambique, Australia and New Zealand. An unfunded grant of \$5m had been set up for American students needing financial help to go to Cambridge and Canadian students were to receive additional legal training at the university.

The readiness of the university's colleges to agree a programme for reducing their student intake over the next three years meant that Cambridge would achieve the 10,280 home and EEC student target set by the University Grants Committee.

Resources are dwindling

The uncertain prospect of a "steady state" on resources has been replaced by the certainty of dwindling resources and diminishing numbers, Mr Geoffrey Warnock, vice-chancellor of Oxford University, said in his installation speech this week.

The university was seeking to avoid damage from too rapid a rundown by using reserves over the next three years. During 1981-82, however, the initial cost of 2 per cent appeared by Trinity term to have been more than necessary so that Council decided to reduce the planned cuts for 1982-83 from 3 to 2.5 per cent.

But, he said, the prospect was bleak for 1983-84, as the UGC provision had effectively been cut further, since there was to be no extra money for salaries.

The issue of staff numbers was now a familiar though far from agreeable picture. In the short run, most posts falling vacant had to stay unfilled if substantial short-run savings were to be made.

Oxford's General Board has proposed greater changes to academic staff establishments than those in the

UGC's advice in its Oxford letter in July 1981. A report in the *Oxford University Gazette* says that, with the expected decline in

Overseas continued

NGEE ANN POLYTECHNIC
REPUBLIC OF SINGAPORE

invites applications from suitably qualified persons for appointment as LECTURING STAFF in the following DEPARTMENTS:-

- a) Building Technology
b) Business Studies
c) Computer Studies
d) Electrical and Electronic Engineering
e) Mechanical Engineering
f) Shipbuilding and Repair Technology
g) English Language
h) Mathematics and Science

The Institution
2 Ngee Ann Polytechnic is a premier Government Polytechnic offering diploma courses equivalent to higher technical diploma of BEC/ITEC standard. The Polytechnic has a student enrolment of 3,800 and a full-time academic staff strength of 241 in the current academic year. The student population is expected to increase to 5,000 by 1986 with a proportionate increase in staff strength. The current annual operating budget of \$16.5m is expected to be increased to \$70m. The medium of instruction is English.

Qualifications
3 Candidates must have an acceptable University Degree and/or professional qualifications in a relevant field and have at least two years relevant industrial/teaching experience. However, preference will be given to candidates with experience in the following areas:-

- a) Building: Building, Utility and Mechanical Services.
b) Business Studies: Accounting with BOP, Marketing (Export) Statistics & Economics, Work Study, Production Planning, Purchasing & Supply, Insurance & Law, Business Organisation and Business Data Processing.
c) Computer Studies: Professional computer experience together with experience in teaching and research in Computer Science.

d) Electrical and Electronic Engineering:
(1) Electrical Engineering
(2) Electronic Engineering particularly in Robotics in Data Communication.

e) Mechanical Engineering:
Refrigeration & Air conditioning, Plant Maintenance Engineering, Computational Machining, Machine Tool Technology, Instrumentation & Control, Industrial Automation, Robotics Technology, Welding Technology, Heat Treatment Technology and Jig & Tool Design.

f) Shipbuilding & Repair Technology:
Towing Tanks, Offshore Engineering, Shipbuilding/Ship Repair/Ship Design, Computer Programming.

g) English Language:
Teaching English to Technical and Business students.
h) Mathematics and Science:
Statistics, Engineering Maths and Computer Programming.

Gross Annual Emoluments
4 Gross Annual Emoluments range from \$26,376 - \$55,644. (The present rate of exchange is \$1 = S\$3.76) The above figures include a current 13 month allowance and a 2% employer's contribution to the Singapore Central Provident Fund.

The levels of appointment and points of entry into the above salary range will be dependent on qualifications and experience. Applicants need only apply for a Lecturing Appointment, giving details of qualifications and experience, but the Polytechnic will decide on final offer after interview.

Terms and Conditions of Service
5 Singaporean and Malaysian will be offered appointments on local terms. Other successful candidates will be appointed on contract of up to three years' duration. Successful applicants will also be eligible for medical/dental benefits, membership of Central Provident Fund, free air passage for employee, wife and children, children education allowance, housing allowance, commuted board and lodging allowance, baggage allowance, etc. Applicants will be supplied with details of terms and conditions of service if they are shortlisted for interview.

Applications
6 Applicants should apply giving details of their personal data, qualifications, experience and present position and current salary. It is imperative that all applications, ALL DATES including month and year should be clearly given. Photo copies of qualifications should be sent with applications, and these should be addressed to:-

Ngee Ann Polytechnic
Personnel Department
535 Clementi Road
Singapore 2168

Applications close on 28th Oct 82

WAIT Western Australian Institute of Technology

SENIOR LECTURER NURSING (TENURED)

Carry out teaching and administrative duties in the School of Nursing; provide educational leadership in programme development; serve as a resource person and co-ordinate teaching/learning activities for undergraduate and postgraduate students; maintain close liaison with the nursing profession and collaborate with resource persons in hospitals and other health care agencies. Opportunities exist to conduct research and participate in research activities relevant to the School's programmes.

Qualifications: A higher degree in nursing or a related discipline, a nursing education diploma or equivalent qualification, extensive knowledge of current nursing practice and teaching experience.
Salary range: Senior Lecturer, \$20,127-\$32,187 (A 3% increase on these rates is provided Government conditions).
Conditions include leave for applicants and family plus provisions with removal expenses, superannuation.
Applications: Details including name and address of three referees should be submitted in duplicate not later than 22nd October 1982 to the Migration Officer, Western Australian House, London WC2R 0AA, from whom further information may be obtained.
When applying please quote ref. No. 518165

North American news

Research controls rejected

from Deborah Kasouf

WASHINGTON
The benefits of open scientific research in universities and Government and private research laboratories outweigh the possible national security risks, according to a report released by the National Academy of Sciences.

The long-awaited report, prepared by a special panel of the committee on science, engineering and public policy, concluded the long-term national security of the United States was best protected "through the continued vitality and achievements of its economic, technical, scientific and intellectual communities." "Security by accomplishment depends on a strong research and development effort that openness in scientific communication helps foster," the report says.

The panel, chaired by Mr Dale Corson, president emeritus of Cornell University, was convened seven months ago following clashes between the scientific community and federal officials over restrictions on the communication of research results.

"To attempt to restrict access to basic research would require casting a net of controls over wide areas of science that could be extremely

damaging to overall scientific and economic advance, as well as to military progress," the panel said. "The short-term security achieved by restricting the flow of information is purchased at a price," it concluded.

Federal officials had sought controls over the release of scientific findings in an attempt to prevent United States adversaries, particularly the Soviet Union, from gaining access to the information.

During its study of the problem, the panel found that unwanted technology transfer was "substantial and serious" and included "a significant portion" which was damaging to national security.

However, the panel also found that in most cases the documented instances of such leakage involved abuse of visitor status by Eastern bloc scientists. It stated that the information which it reviewed "failed to reveal specific evidence of damage to US national security caused by information obtained from United States academic sources".

The other channels mentioned by the panel include legal equipment purchases, outright espionage, illegal international trade and leaks from legal recipients abroad.

The panel did acknowledge there

was a legitimate need to safeguard some information, particularly technical know-how that could be applied to military design and production. It recommended guidelines that would allow all but a small percentage of government-funded, academically-based scientific research to be performed without restrictions.

No restrictions should apply to basic or applied research, according to the panel, unless it meets all the following criteria:

● A rapidly developing technology along with a short time from its basic science to its application.

● The technology has direct military applications; or can be readily converted to direct military use and involve process or production-related techniques.

● Its transfer would give the Soviet Union a significant, near-term military advantage.

● The United States is the only source of information about the technology, or other friendly nations that could be the source have control systems as secure.

In the rare cases where the research does meet the proposed criteria, the panel recommends the research be given a security classification. It notes that most universities will not undertake such work.

Focus is on links with industry

Leaders of Government, business and industry, educational associations, colleges and universities gathered together near the Jefferson Memorial in Washington to mark the end of National Higher Education Week.

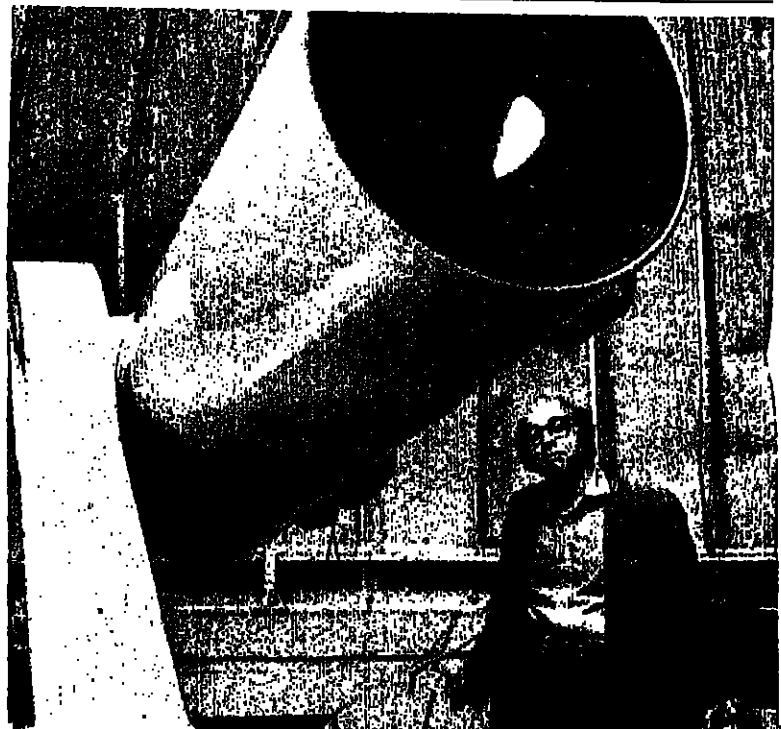
The Secretary of Education, Mr Terrel Bell, presented the Jefferson medal for the college alumnus who had made extraordinary contributions to American society to Father Theodore Hesburgh, president of the University of Notre Dame.

The Council for Advancement and Support of Education also presented its professor of the year award to Dr Anthony Aveni, professor of anthropology and astronomy at Colgate University, Hamilton, New York.

The focus of this year's national education week was the mutual contributions of education to business and industry. Educational institutions across the country organized activities to highlight that relationship.

For example, Ball State University in Indiana sponsored a "college and industry dialogue" in cooperation with the National Association of Manufacturers. In Washington, Georgetown University held a symposium on strengthening the relationships between higher education and business and industry, attended by campus presidents and corporate officials.

Mr Charles Helmen, vice president of CASE, said: "Corporations, business and industry have continually supported education without receiving much recognition." His national organization sponsored Higher Education Week.



Anthony Aveni: professor of the year

In the face of cutbacks in other areas, higher education has more need for financial support from business and industry, and they have needs that educational institutions "can supply."

In response Mr Helmen initiated the public relations campaign, which has so far spent almost \$10m in public service and broadcast time.

State universities given extra squeeze

from Mark Gerson

MONTREAL
Three public universities in British Columbia have been told to expect nearly four per cent less Government funding than promised for the current academic year.

As a result the University of British Columbia, Simon Fraser University and the University of Victoria will have to trim a total of \$12m from operating budgets that came into force last spring.

Ironically the universities were still complaining about the inadequacy of their original grant when the cutback was announced. Cuts are also expected in the province's student aid programme in a year when financial aid applications have jumped more than 40 per cent.

The cuts are part of a province-wide restraint programme designed to bail the Government out of serious financial difficulties. While prepared to do their bit in

the current economic crisis, British Columbia's universities have accused the Government of unfair treatment. They maintain that provincial support for universities over the past decade has fallen behind other public sector spending. They have insisted that additional cuts be made in health care and public school budgets first.

They have also questioned claims by the universities minister, Mr Pat McGeer, that strict adherence to the province's 6 per cent wage limit for public employees will save them the entire \$12m.

Mr McGeer, on the other hand, says British Columbia's universities have done "damn well". "Given the economic climate, when you see what universities throughout the world are facing, you wonder how it is possible to be so lavish here," he said.

Complicating the impact of the grant cut is an increasing student population on the west coast. Simon Fraser University faces an 8 per cent

enrolment increase this year while the University of Victoria has 14 per cent more students.

Officials at Simon Fraser expect to have to trim about \$2.5m from current expenses in order to avoid a deficit at the end of the year. This follows last year's exercise in which \$1.8m was cut from the university's budget and tuition fees were raised 31 per cent.

Both settlements are now before the province's Compensation Stabilization Board, a body set up under British Columbia's wage restraint programme to rule on wage settlements over 6 per cent.

Peter David, North American Editor, The Times Higher Education Supplement, National Press Building, Room 541, Washington DC 20045, Telephone: (202) 638 6765

Overseas news

Ugandan students joining the guerrillas

from Irungu Ndirangu

NAIROBI
Thousands of former students at Makerere University in Kampala, Uganda, are now fighting President Milton Obote's government as guerrillas in the bush.

A former Makerere student who was captured in the bush by the Ugandan Army and recently paraded in the streets of Kampala told reporters that he had left many other former students of the university fighting the government as guerrillas. The student said his fellow students joined the ranks of the Uganda Freedom Movement (UFM) after they were promised fat salaries and big posts by senior officials of UFM.

The former student was arrested in the company of 350 guerrillas in a village near Kampala where they tried to set up camp. The group was apparently led by the wife of the president of Uganda Freedom Movement. They were arrested after the Ugandan Army got a tip-off on their intentions. The army laid siege on the guerrillas walked into the trap.

UFM confirmed that a number of their men were arrested as they tried to set up camp, but denied there were 350. They said in a press release from Nairobi that only 12 guerrillas were captured.

Meanwhile, President Obote left for Padua University in Italy to seek aid for the rehabilitation of Makerere University. The President, who is also chancellor of the university,

will seek to renew a special relationship between Makerere and Padua that allowed the two institutions to exchange teaching personnel and technology.

Makerere fell into disarray during the 10 years of chaotic rule under President Idi Amin. During those years, the teaching staff at Makerere fell by 60 per cent while lack of capitalization and maintenance saw much of the university's equipment fall into disrepair.

When he returned to power four years ago, President Obote appointed a commission to look into the terms and conditions of service of the teaching staff at Makerere.

The commission headed by Mr Simeon Ominde, Professor of Geogra-

phy at Nairobi University, was charged with finding ways of attracting back to the university those Ugandans teaching abroad.

The recommendations, though accepted by the Government, have not been made public. Makerere's vice-chancellor, Professor Wandira, recently told the press that the university faces severe financial shortages.

Although the university has received grants of about \$10m from such bodies as the Carnegie Foundation, Ford Foundation, Rockefeller Foundation and the Rowntree Trust, continuing problems with rehabilitation mean that the student intake has had to be cut from 2,000 to 1,000 this year.

Turkish open university to start soon

Professor Ihsan Dogramaci, president of the Turkish Higher Education Council, and Professor Yilmaz Buyukersen, the rector of the Anatolian University at Eskisehir, have announced that some form of "open university" is to be established shortly, with the primary aim of permitting some of those who failed their entrance examinations to benefit from higher education.

Members of the HEC have more than once indicated that they aim eventually to be able to offer every applicant a place in a university or college, and the recent increase in the overall university intake was a first step in this direction.

Although many feel that the HEC is sacrificing quality for quantity, and point to the fact that the plans for an open university are vague and lack financial backing, the two decisions have done something to ease the unpopularity of the HEC, which has angered teaching staff by attempting to impose a common curriculum on all faculties.

Professor Dogramaci and his colleagues are also coming under increasing fire from the left-wing and social democrat press, which claims that several of the new university rectors and deans formerly had connections with the extreme right-wing Nationalist Action Party of Mr Alpaslan Turkes.

In another move, Turkish students who also work for a living were given a last-minute reprieve when Professor Dogramaci announced they would not be subject to the same attendance requirements as other students.

is part of the CASE campaign, "America's energy is mindpower" now in its second year. CASE, a professional organization representing campus administrators, conducted a membership survey in 1978. It found that their chief concern was for more attention from the media on the needs of higher education.

In response Mr Helmen initiated the public relations campaign, which has so far spent almost \$10m in public service and broadcast time.

Indian open university inaugurated

India's first open university, modelled on Britain's, was inaugurated by Mr Zail Singh, the Indian President, at Nagarjunasagar, in the southern state of Andhra Pradesh, at the end of August. Nagarjunasagar was a Buddhist seat of learning in ancient India and is today the site of one of independent India's most gigantic dams.

The new university is meant to offer non-formal higher education to chiefly rural aspirants, especially women and Harijans (untouchables). In urban areas, the expectation is that factory workers and other employed and self-employed adults will take courses in the hope of improving their economic status as well as broadening their minds.

Students will have to enrol in one of the numerous study centres that are to be opened all over the state. Learning material will be posted; in addition, there will be periodic instruction through "contact programmes" at study centres.

Courses will be centrally designed and will emphasize the inter-disciplinary approach. There will be total flexibility in enrolment criteria, age of entry, choice of courses, methods of instruction and the conduct of examinations.

Thomas, Lessing and Carter: heading north

from Donald Fields

SAUL BELLOW, Doris Lessing, Anthony Burgess, John Berger... the guest list is as glittering as the organizer of the world's most star-spangled literary soiree could imagine.

End of the line for the turbo-prof

from Guy Neave

PARIS
French university presidents are being encouraged to take severe measures against absentee academics. This message was spelt out loud and clear by Mr Alain Savary, Minister of Education in a circular passed appropriately during the month of August.

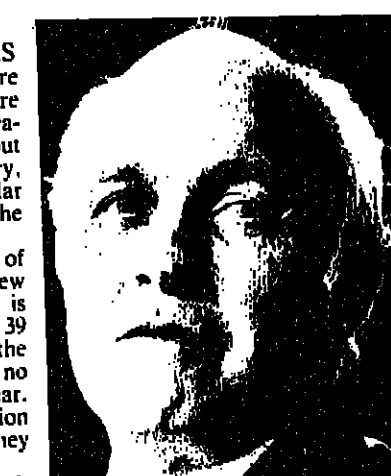
In it, academics are reminded of several unpalatable truths and a few obligations. Amongst the latter is that their presence is required for 39 hours per week. And amongst the former, that vacation time is no more than 32 working days per year. Finally, teachers in higher education should reside in the town where they teach.

Though not surprising to their British fellows, these demands have come as a considerable shock to the inhabitants of French higher education.

Corporate life in French universities has never been known for its attractiveness. Thus, it is by no means unusual for lecturers to give their courses and depart to where they came from.

Added to this is the hallowed institution of the so-called turbo-prof. This practice, akin to pluralism in the medieval church, permits the able and the ubiquitous to teach in at least two universities, commuting between them by high speed train - hence the name.

In future, those guilty of this practice will find their timetables spread across the week, rather than grouped



Alain Savary: cracking the whip

around one or two days - the secret of the enterprise. Such miscreants will be asked to give a local address to which their salary may be paid - a strong hint that, if it is not local, it will not be paid. Finally, M Savary pointed out, those persisting in their ways will find research budgets docked and chances of promotion much diminished.

Whether the zeal of these reforms will be sustained, is debatable. They will, after all, have to be enforced by those who have profited by their absence in the past.

To cap it all, the academic year is to be extended from the customary 25 weeks to 32 per year. This will bring the universities in line with

Stockholm lines up stars of the literary world



radio interview with John Updike. "I thought we should throw top writers open to the students," Ms Horney recalls. "They could get a lot out of listening to people who serve to inspire us all."

Her enterprise dovetailed with fresh initiatives being taken by the university English department, culminating in a separate English-speaking union, and coincided with the opening of a new student union building. By hard work and persistence, she has managed to coax a galaxy of famous names to head northward for Stockholm.

In the spirit of the student union, the venture has remained non-profit making. Though publishers launching or reissuing books by visiting writers are happy to furnish financial support, and the university to provide extra-spacious premises. So the list of talents on offer blossoms: Alvin Toffler, Michael Phillips, D. M. Thomas, Angela Carter.

No visa for Crafoord winner

from Vera Rich

STOCKHOLM
Sweden's new Crafoord prize, already being widely compared with the Nobel prizes, was awarded for the first time last week. One of the two recipients, Professor Vladimir Igorevich Arnold, however, was not present to receive his award as he did not receive a Soviet exit visa.

Invitably, Swedish public opinion has recoiled at the three Nobel Laureates, Boris Pasternak (1958) and Alexander Solzhenitsyn (1970) for Literature, and Andrei Sakharov for Peace (1975), who failed to make the journey to Stockholm. These three, however, received their awards for writing and activities deemed hostile by the Soviets.

Professor Arnold was keen to come to Stockholm, and the prize, which he shares with Dr Louis Nirenberg of New York University, was awarded this year for mathematics - to be precise, for the theory and application of non-linear partial differential equations.

According to several mathematicians who attended the prize ceremony at the Royal Swedish Academy of Sciences, and the mathematical symposium which followed, Dr Arnold is a strong character who has in the past spoken up against what he considered injustice to colleagues.

Despite denying Professor Arnold a visa, the Soviet authorities appear to feel somewhat embarrassed at the situation. The Crafoord prizes, which were set up by Mr Holger Crafoord, inventor of the dialysis machine, and his wife Anna-Grete Crafoord, is a substantial one. In addition to a gold medal, the prize money amounts to Swedish kr.50,000 (£3,500). More-

over, since the subject will rotate each year, according to a complex system, between mathematics, astronomy, and other sciences not covered by the Nobel prizes, it will have a greater rarity value than the Nobel.

In the past, when Soviet Nobel Laureates failed to arrive, the Soviet Embassy in Stockholm boycotted the prize ceremony. This time a Soviet scientific attaché was present, officially ignorant of why Professor Arnold had failed to arrive, but eager to discuss the development of Soviet Swedish cooperation.

Most untoward has been the fate of the right-wing Union Inter-Universitaire. It received a mere FFrs27,600 (£2,300) a far cry indeed from the days of the previous minister of higher education, Mme Alice Saunier-Seïte. Then in an effort to break the hold of the left over student affairs, the tiny UNI was inundated with good things to the tune of FFrs320,000 (£26,500).

Like the pharaohs of old, M Savary has shown that the policy of the crook and the thief is still useful when dealing with higher education.

Tel Aviv 'test-tube' first

from Benny Morris

JERUSALEM
Tel Aviv University's hospital, the Sheba Medical Centre, this week achieved a clear "victory" over the Hadassah University medical centre, the University Hospital of the Hebrew University of Jerusalem, with the birth there of the first "made in Israel" baby.

Sheba staff said the baby girl, weighing 3.78 kilograms, was healthy, but refused to publish the names of the parents to allow them "to lead an entirely normal life". The birth came exactly 10 months after the health ministry gave official sanction for the test-tube baby projects in both hospitals.

Professor Shlomo Mashiah (his name in Hebrew means Messiah), who headed the Sheba test-tube baby project and performed the Caesarean section in which the delivery was made, said that Sheba has had an 11 per cent success rate.

He said 120 women have been examined in Sheba for possible application of the test-tube method, and 60 have had ova removed and fertilized. Fifty-two ova were reinserted into the uterus. Six of these resulted in pregnancies but three ended in miscarriages.

The whole subject of test-tube babies has been surrounded by controversy in Israel due to objections from orthodox religious circles that test-tube babies are "unnatural".

But last year, Chief Rabbi Shlomo Goren in effect broke the back of religious opposition to the test-tube baby method when he issued a P'sak Halacha (religious ruling) sanctioning the method.

Research grants cut back

from Geoff Muslen

MELBOURNE
The Australian government is continuing its squeeze on university research in grants allocated last week under the Austalia Research Grant Scheme. Total money available through the scheme, the main means of finance for Australia's high quality research, will rise by only 7 per cent to A\$19.25m (£10.8) in 1983.

According to Professor Max Rennan, the chairman of the committee which administers the grants scheme, a total of 514 research proposals that should have had allocations of...

money will go without next year because of the squeeze. This year, 373 research projects were not financed.

The ARGS was begun in 1966 to provide finance for basic research of high quality selected in the main science areas. In equivalent 1982 terms, the grants were worth A\$15.5m in the first year they were set up. In 1975, the figure had risen to A\$21m but they were then cut until they stabilized at A\$17.98m in the 1980-1982 period.

In the past year, the Government has been concentrating its funding outside the scheme on 10 centres of research excellence.

In the first part of his series on the great American universities, Peter David examines why Harvard

Clinging to the top of the league

The 1980s have nowhere been kind to higher education so it is a pleasure to report that at least one pillar of western intellectual life is, most emphatically, not in crisis. In Cambridge, Massachusetts, Harvard remains regal, rich, powerful and certain that it is the greatest university in the United States and, perhaps, the world.

Last year, the market value of the university's private endowment climbed to more than \$1,622m. Its annual budget was \$450m and it received gifts worth more than \$90m. There were 27 Nobel laureates on the payroll, the freshmen and women were brighter than ever and the alumni were responding well to an invitation to contribute \$350m in private donations to the undergraduate college.

Butressed by wealth and prestige, Harvard has been better able than most universities to attend to internal educational and philosophical questions. Its president, Derek Bok, has been sufficiently free from daily management crisis to produce a series of thoughtful open letters - and recently a book - dealing with deep issues like academic freedom, social responsibility and the political role of the university.

At the same time, the university embarked on a reform of its undergraduate curriculum, a reform intended to stimulate debate about the purposes of a university education and the consequences for universities of the sweeping social and intellectual changes of the late twentieth century.

This flurry of introspection has had a paradoxical result. For all the dynamism and self-confidence of its scholarship, and despite its commanding position in the American social structure, Harvard has emerged as a cautious institution, uncertain of its role and reluctant to strike positions - ethical, educational or political.

Nowhere has this new spirit of caution emerged more plainly than in the undergraduate "core" curriculum, a curriculum subjected to painful and public reform over the past eight years. Although the changes impinge on only a fraction of the student programme, they have reverberated throughout the nation.

Harvard's curriculum debate became a metaphor through which larger themes were played. What does it mean, in the late twentieth century, to be an educated person? To which central values should an educated person adhere?

Harvard's answer was symptomatic of the times. Knowledge had become too complex and values too diffuse to be refined into a manageable residue of great texts and ideas. A new curriculum should concern itself less with knowledge than with ways of knowing; instead of imbuing values students ought to master the different forms and techniques of moral reasoning.

In an interview with *The Times*, Derek Bok described the new curriculum as a logical, almost inevitable, adaptation to new realities. "It reflects the feeling that knowledge has become so large on the one hand, and our sense of universally shared moral values so cloudy on the other, that it is difficult to say that there is a body of books and facts on which the curriculum should be based."

because of widespread dissatisfaction with the existing undergraduate programme. In a letter to the faculty, Rosovsky claimed a debate on the curriculum could revivify a moribund spirit of collective academic enterprise.

"My purpose is to engage you in a collective effort to identify the major concerns to which we must address ourselves," he said. "What may finally emerge from our discussion is perhaps no more important than the fact of deliberation itself, for it is essential that the people who intellectually sustain Harvard College understand the role that they are called upon to play and believe in its importance."

Before the Rosovsky reforms, Harvard's curriculum had been based on its famous "red book", an optimistic agenda for liberal education published in 1945 with the title *General Education in a Free Society*. Seeking to provide undergraduates with a common and binding understanding of society, the red book prescribed courses which would inculcate "the capacity to think objectively, to communicate, to discriminate among values and to make relevant judgements."

By the sophisticated 1970s, there seemed to be something naive, almost quaint, about basing a "common and binding" appraisal of society on a handful of central texts and ideas. Rosovsky told the *Harvard Magazine* in 1979: "At the moment, to be an educated man or woman doesn't mean anything. It may mean that you have designed your own curriculum; it may mean you know all about urban this or rural that. But there is no common denominator."

But it was not only the philosophy of the red book which seemed inappropriate by the 1970s. It no longer matched the bureaucratic realities of Harvard. At the heart of the red book had stood great unifying courses with titles like western

Shakespeare," he said. "In theory, yes, because we do not require Shakespeare. Our emphasis in literature and the arts is on the genre, and certainly drama is a major genre. If you choose to acquaint yourself with drama you will run across Shakespeare."

Few of the courses offered on the core are, in any case, as narrow as their detractors claim. In the history category it is possible to take courses in subjects as precise as America's conquest of tuberculosis or as embracing as the development of international political economy.

Most dons who witnessed the unfolding of the curriculum accept the contention of Bok and Rosovsky that it is a misguided parody to describe the core as a "glorious delatessen". Yet powerful criticisms persist. Many of the core believe the curriculum had become a delatessen long before. The core was created precisely to restore some kind of guiding principle.

Derek Bok likes to debunk the fashionable notion that university curricula have progressed from a structured and orderly past to a present disordered cacophony of different subjects and topics.

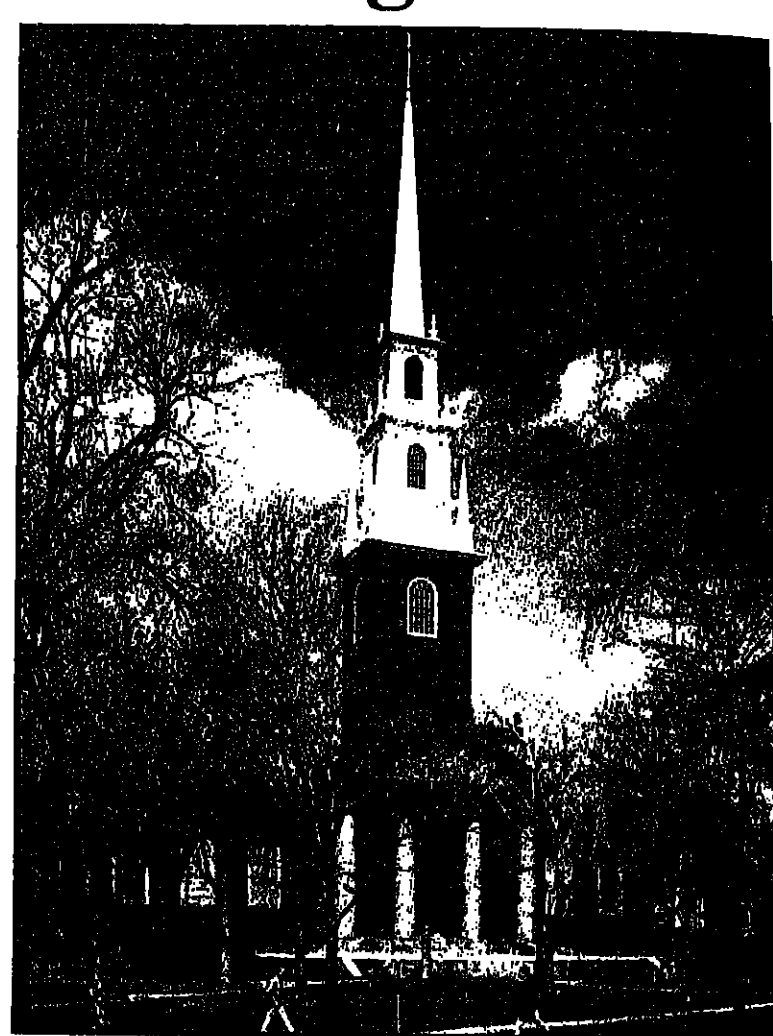
"The most free-wheeling period in Harvard's history came in the latter part of the last century up to the first decade of this century under President Eliot, often regarded as Harvard's greatest president," he said. "He advocated a wholly elective curriculum without majors, without any general education, without requirements of any kind. He pretty well introduced those standards. If there was any time that Harvard abandoned a tradition of being the custodian of a certain body of permanent knowledge it was that time."

Bok sees the core as a reassertion of rigour, a sharper definition of what is or should be fundamental in a liberal education. He draws particular attention to three components of the core - quantitative literacy, foreign cultures and moral reasoning - which have been given a more prominent place in undergraduate learning.

"Our efforts to have a value free curriculum went too far," he added. "There is a way, without indoctrination, that you can help students reason more clearly and be more perceptive about the existence and significance of moral and ethical issues."

Rosovsky, the real force behind implementation of the core, has even less patience with those who claim that it has led to a mindless multiplication of narrow electives. The core's philosophy - that it was no longer possible to give undergraduates a useful survey of every pinnacle of ancient and modern learning - forced Harvard to make hard decisions about the treatment of cherished subjects.

"Can you really graduate from Harvard without reading



Harvard: showing a new spirit of caution

other or with dons, and the core does little to strengthen Harvard's arthritic system of undergraduate houses.

"The core curriculum does not in fact ensure cultivation. This is because there is so little conversation in the houses, because the chances that your roommate will be taking the same courses as yourself is negligible, and because the students now are running in such a frightened way before the vocational future and its hazards."

Paul Barret, president of the Harvard *Crimson*, put it this way: "I don't think Harvard ever promised me or promised anyone else that they would offer me the benefits of the law school, the medical school or even the close attention of the various shining lights in the traditional academic disciplines."

"Harvard doesn't say you will go to lunch with these people and that these people will guide you through your academic career. It never pretends you will be close friends with Bernard Bailyn or Walter Jackson Bate. What it does say is that these people hang around here and teach every now and then."

If you want a traditional liberal education, says Barret, go to a smaller college like Amherst, Colgate or even Princeton. At Harvard, undergraduates have little time to waste on general intellectual pursuits: the pressure to get on, or into professional school, is simply too great.

Both Riesman and Gomes fear that the defects of undergraduate life at Harvard are, in some ways, illustrative of defects in the overall structure of the university. They believe the institution has done too little to counteract the magnetic pull of research and the towering professional schools - particularly law, medicine and business.

seems uncertain about its future role

publication and professional training also has a corrosive effect on undergraduate life.

This corrosion takes many forms. Harvard's faculty, immersed in research and publication, cannot invest too heavily in teaching. Undergraduates themselves, anxious about their future and highly competitive, become obsessed by the scramble to gain entry to graduate or professional school. Much of the teaching burden is shouldered by graduate assistants or junior faculty destined never to win tenure at Harvard.

"The image of the place is much more successful than the reality, and most high school students are investing in an image," said Gomes. "There is an inevitable disappointment. I think they expect a combination of twelfth century divines discoursing in wigs, and the great movers and shakers of our times - the Galbraiths and Kennedys - arguing over lunch."

To these criticisms Harvard has a stock, rather brusque, reply. It goes something like this. Although Harvard tried, by reforming the curriculum, to breathe new life into the undergraduate programme, it does not pretend to offer students an orderly or cushioned liberal education.

Instead, Harvard's real bounty is itself: a confusing, disordered, but always stimulating intellectual cornucopia from which students - or at least the bold ones - can feed as they please.

In any case, the answer continues, Harvard is just no longer able to offer an Oxbridge-style collegiate experience. Rosovsky said: "When people talk about 'the community of scholars' I wonder whether they have in mind the size of the institution we are today. This faculty (arts and sciences) has a budget of close to \$200m a year. We have 1,000 teachers, 500 tenured professors and about 60 departments."

If Harvard's answer seems complacent, it is a complacency based on strenuous efforts to ensure that only the best and brightest school leavers make it to the college. Harvard turns away 84 per cent of all freshmen applicants. Yet its admissions office prides the nation, scrutinizing school records to locate the best students and claim them for Harvard.

As a result, a very high proportion of the college's undergraduates are indeed able and robust enough to find their way through the bewildering maze. For many, just being in Cambridge is exciting enough; what happens there is almost besides the point.

Paul Barret, president of the Harvard *Crimson*, put it this way: "I don't think Harvard ever promised me or promised anyone else that they would offer me the benefits of the law school, the medical school or even the close attention of the various shining lights in the traditional academic disciplines."

"Harvard doesn't say you will go to lunch with these people and that these people will guide you through your academic career. It never pretends you will be close friends with Bernard Bailyn or Walter Jackson Bate. What it does say is that these people hang around here and teach every now and then."

If you want a traditional liberal education, says Barret, go to a smaller college like Amherst, Colgate or even Princeton. At Harvard, undergraduates have little time to waste on general intellectual pursuits: the pressure to get on, or into professional school, is simply too great.

"You don't necessarily become pre-professional. But if you are not going to be a pre-med, pre-law or pre-business - where you know exactly where you are going to jump - you are at least pre-practical. You're not just walking through here saying how nice it is and reading a lot of books or writing poetry. People are tentative about every commitment of time."

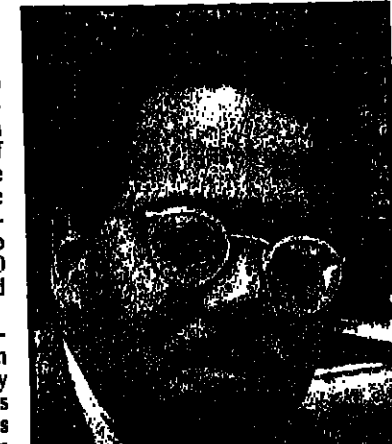
The competitive anxiety of students to move rapidly towards their career goals is a phenomenon over which Harvard itself has little direct control. But it is one argument offered by David Riesman for an undergraduate curriculum which is somehow more embracing, providing some shelter beneath which students can, for a while, pursue an education for its own sake.

There is another reason, too, connected with the nature of today's Harvard undergraduates. Over the past 30 years, the university has revolutionized its admissions policy. It deliberately ruptured its relationship with a coterie of New England private schools to become a truly national university, drawing students from all regions and all social backgrounds.

Huge efforts by the university admissions office and generous help for poorer students have made the diversification of the student body a justifiable source of pride. Nearly 70 per cent of the class of '85 comes from public rather than private schools. More than 20 per cent come from the ethnic minorities - blacks, hispanics and Asians. Some 40 per cent are women.

For a patrician university steeped in the service of the Massachusetts ruling class these figures represent a startling achievement, one which has enabled Harvard to accommodate pressure for broader access by replacing an old elite based on class with a new one based on ability.

But it is also an achievement which has contributed to the fragmentation of undergraduate life. Today's entering freshmen and women, drawn from a school system with none of the ballast provided in Britain by the A level examinations, often have little more than their brilliance in common with each other.



Peter Gomes: critic of structure

With a far more diverse undergraduate population, the need for a unifying curriculum might appear to be more compelling than ever. Yet it is precisely at this moment that Harvard has decided to abandon any attempt to provide the "common and binding" intellectual programme of the kind advocated in the 1945 red book.

Harvard's decision is not as perverse as it may seem. The growing heterogeneity of the undergraduate college, while it has compounded the need for a unifying curriculum, also compounded the difficulty of devising one suitable for the multiplicity of talents and backgrounds represented by the entering class.

In any event, why bother? The new admissions policy, by coupling a progressive policy of access to a rigid insistence on traditionally high entrance standards, appeared to provide the university with an excuse for a degree of benign neglect. Harvard, the impresario, had brought the most cleverest youngsters and the wisest dons together in Cambridge. Surely there was no need to write a detailed script.

"There is in some sense a notion that we do not have to educate our students because we admit only the brightest," said Gomes. "It lets us off the hook. It leaves us free to run the Government, write books, explore new metals."

Harvard's reluctance to teach unifying courses is less a result of a disregard for the welfare of undergraduates than the product of a sincere spirit of intellectual caution which seems to have infected the administration. Teaching elegant synthesizing courses in the Grand Old Style would smack of paternalism and imply a greater degree of intellectual certainty than the institution was prepared to claim.

Harvard has grown to distrust certainty, and those who claim to possess it. Its caution is reflected not only in the undergraduate curriculum, but also in its posture towards disciplines and its relationship with national politics. The confidence of its individual departments and



scholars has somehow failed to give Harvard a wider institutional confidence.

As a result, those who claim to represent the institution as a whole seldom speak with too loud a voice. Derek Bok, a president very much in the mould of a mediator, believes it is important to foster a sense of loyalty to Harvard, but is in no position to challenge the autonomy of the great schools or bend them to a single vision of the university.

Unlike some universities, Harvard has never split its powerful faculty of arts and sciences into separate graduate and undergraduate sections. Dean Rosovsky maintains that the faculty has active relations with the professional schools, in some cases mounting joint doctoral programmes. Many star scholars have been persuaded to teach on the core curriculum.

But there is little evidence that any of this activity has resulted in significant intellectual commerce between the university's fiefdoms. Senior faculty who detect an underlying sense of loyalty to the institution are hard put to define it.

"Harvard has always been so big, the medical school and the law school so far apart," said Archibald Cox, former solicitor general and a central figure in the law school. "Even the departments are inward looking. Nevertheless, part of me says that despite this dispersal there is an underlying coherence or loyalty."

In the past 30 years campus-wide loyalties have been further attenuated by the explosion of links between individual academics and departments and the outside world. Large-scale federal grants for science, the use of academics to advise governments and the ever-growing need for experts brought Harvard into closer contact with the nation but loosened its internal bonds.

The fragmentation of the university, like the fragmentation of undergraduate life, has had profound intellectual consequences. It is no coincidence, says Riesman, that some of the most important inter-disciplinary work is being done at smaller colleges like Amherst. At Harvard, junior faculty are afraid to stray far from their core discipline.

He adds: "What has happened is that graduate students themselves learn that if they are to get tenure they had better meet their department's definition of what is central to that department rather than have friends at the fringes of the discipline."

Harvard's mood of caution extends into its political relationship with America. Last August, Martin Feldstein, a Harvard economist of notoriously conservative persuasion, accepted an invitation to go to Washington as head of President Reagan's Council of Economic Advisers.

For the embattled Reagan administration, nothing could have seemed more natural than to turn to Harvard for reassurance. Harvard has been a purveyor of gurus to presidents for longer than it cares to remember, and sometimes it has provided the presidents themselves.

Professor Feldstein's summons to Washington was, therefore, only a reminder of the hold which its oldest university maintains on America's political pulse. But the appointment was a reminder that the university which gave the United States its Roosevelt and Kennedys could also supply lieutenants for Reagan: that the institution once disparaged as "the Kremlin on the Charles" could, when necessary, dance to an altogether political tune.

Harvard's leadership relishes such opportunities to blur the popular image of Harvard as the home of the New Deal, the New Frontier and the Great Society. Graham Allison, dean of Harvard's Kennedy School of Government, is characteristically edgy about its title. "There is a tendency to see the JFK school of government as a school of big government. But the evidence is strongly to the contrary. We provided many members of the present administration in Washington," he said.

Allison's claim is true. Defence secretary Weinberger, treasury secretary Regan, attorney-general William French Smith and secretary of transport Drew Lewis are all Harvard alumni. So are half a dozen senior members of the White House executive staff.

Why does Harvard work so hard to emphasize its political neutrality? It would be wrong to see its reluctance to show a single political colour as merely practical politics, a judicious adjustment to changes in the national mood. Its motives are neither so simple nor so self-serving. The university's new creed of ideological pluralism springs from sincerely-felt examination of its experiences in the 1960s, when John Kennedy, its favourite son, became president of the United States.

Kennedy's accession, and his eagerness to draw on the intellectual resources of his *alma mater*, galvanized Cambridge. Among a score of senior dons summoned to serve the ministry of all the talents were John Galbraith, Arthur Schlesinger Jr.,

Karl Keyser and, most important, McGeorge Bundy, the charismatic dean of arts and sciences transformed instantly into the president's national security adviser. For a glorious moment it looked as though Harvard - and, by extension, the intellectuals - were running the country.

Later, when the Kennedy dream soured and it looked as if the intellectuals had run the nation ship into the quagmire of Vietnam, the mood in Cambridge changed. Many senior professors saw the university's flirtation with Kennedy and power as a moment of dangerous hubris from which it would not easily recover.



David Riesman: sociologist

David Riesman recalls his unease: "I knew these people. They had a cockiness. The very qualities which made Bundy a splendid dean made me absolutely terrified when he went to Washington."

Harvard does at least appear to have learned its lesson. Neither Bundy nor, later, Kissinger, were invited to return to Cambridge. Both had contributed to the university's glamour and prestige but both had been too infected with the aroma of Vietnam to be welcomed without embarrassment by a university which had learned the virtues of political caution.

If, perhaps, Harvard appears to have learned its lesson too well, to have adopted a public and intellectual style bordering on timidity, that might be the price a great university pays in order to perform a large number of competing functions with relative stability.

A university needs its illusions. Peter Gomes believes Harvard is wise to sustain the "becoming fiction" that it has somehow succeeded in combining the best features of a British collegiate university with those of the German research university - a sort of Trinity and Heidelberg rolled into one.

"Harvard's metaphysical strength comes from its belief in its specialness," he says. "If the notion of our limitations became reality, and we had to choose between doing only one or two things well, we would lose the eccentricity and character which makes us a unique institution."



Massachusetts Hall: the oldest Harvard building, dating from 1720

One Englishman and one Frenchman were largely responsible for the philosophy which spurred Hitler's rise to power. As so often, their conservative thought was distorted to serve the Nazi's violent ends.

Inspiration for Nazi imperialism

Ivor Morgan describes how a wealthy British aristocrat influenced German thinking about racial purity and anti-semitism

Houston Stewart Chamberlain seemed set for a career in the middle to upper echelons of the British empire. Born into a wealthy aristocratic family in South Devon on September 9, 1855, he was the nephew of a field marshal and two generals, and son of a naval captain later admiral. Yet this suitable case for induction into the national military establishment failed to make the grade (he was not good at games) and he was gradually drawn toward another imperial pole. At the age of one, the death of his mother took him to the Versailles home of his paternal grandmother, Lady Anne Chamberlain. Although he would return to England for schooling - first at a private academy at Portsmouth, then at Cheltenham College - his lifelong exile had begun.

Nicknamed as a child "P.L.O." or "Poor Little One", ill health and hypersensitivity ruled out the anticipated career trajectory. At the age of 15, the year of his first nervous breakdown, Chamberlain steeped himself in German language and culture. A dramatic (and continuing) influence was exerted at this time by his private tutor, Otto Kunze. For the young Chamberlain "the mere thought of England and the English makes me unhappy", and apart from three years at the University of Geneva he would never spend any significant time outside Germany or Austria. The vision of a heroic Germany, defender of "holy art" against the forces of materialism and rationalism, provided a permanent home and refuge from the shadows of his earlier marginalized life. As he told Kunze, he would have given his left arm to have been born a German.

As consolation prizes for the misfortune of his birthplace Chamberlain achieved the next best things: German nationality, the German Military Cross, marriage to Eva Wagner (the composer's youngest daughter), freeman status of his beloved Bayreuth, some close encounters of the world-historic kind with Kaiser Wilhelm II and with the Führer to come. *En route* there had been problems. (Chamberlain confessed that his timidity was such that he would "pass ten times in front of a café, really having a need to eat, and then depart without having dared to enter".) He suffered a second nervous breakdown, failed to complete his doctorate in plant chemistry, had a brief unfortunate career gambling on the Paris money market, and saw his first marriage gradually disintegrate. But at the Wagnerian shrine at Bayreuth, where Chamberlain spent his last 17 years digging deep roots, everything fell into place. His funeral service in January 1927 testified to his fame. Prince Wilhelm came on behalf of the Hohenzollerns, Hitler on behalf of the National Socialists, Wilhelmian and post-Weimar Germany paying homage to a common spirit.

Chamberlain might have had doubts about entering a life he strode into the literary world with an unshakable certainty. Almost every year from the age of 30 his articles and reviews poured forth. His major books were *Racial Wagner* (1896), *Immanuel Kant* (1905), and *Goethe* (1912), the book which received the most critical acclaim. Yet these alone would not have drawn in much of a crowd at his

funeral. It was *Foundations of the nineteenth century* which did that. Researched and written in Vienna between February 1896 and September 1898 the work caught the anti-modernist mood of the time. In 1899, the year of its publication, three editions of the two-volume work appeared. A popular edition was produced in 1906. By 1938, it had sold more than a quarter of a million copies. According to a letter from the Kaiser to Chamberlain, the *Foundations* was studied and discussed by "nearly all the young officers in the Guard Corps". Many university youth seem to have been spellbound by the book, and a donation by a wealthy manufacturer enabled it to be sent free to schools and public libraries. Published in English in 1910, it was presented (to quote from the introduction by the 1st Baron Redesdale - the son-in-law of the 2nd Baron being Oswald Mosley) as "one of the masterpieces of the century". *The Times Literary Supplement* described it as "unquestionably one of the rare books that really matter".

Although Chamberlain liked to refer to himself as a "modest historian", the *Foundations* takes us on an epochal odyssey of sorts from Hellenism, on through Rome, the Reformation and beyond - the words of self-appraisal he wrote to Cosima Wagner were more to the point: "I know nothing of history, nothing at all."

But when history in the sense of scholarly objectivity was not Houston's thing. "Not theory, but action" was what ultimately mattered, and Chamberlain declared that it would make no difference even if it were proved that "there never had been an Aryan race in the past".

Clear ideological lines had to be drawn for the struggles to come, or as Chamberlain being a follower of the neo-idealist fashions of the time would have it, intuitively gleaned from the *gestalt* of lived experience. Most fundamental of all was the pivotal presence of race as the motor and master key of history. It was axiomatic for Chamberlain that "the human races" differed in their qualities and capacities as much as "greyhound, bulldog, pointer and Newfoundland dog" - witness the brilliant proofs of Gobineau's *Essai sur l'Inégalité des races humaines*, the numerous experiments in the selective breeding of animals and plants ("Why should the human race form an exception?"). Not to mention such "facts" from everyday life as how small children "begin to cry as soon as a genuine Jew or Jewess comes near them!"

The political goulash of a future era - Race, Blood and Struggle - was gradually stewed up, with the chef of the house occasionally lifting up his hands in mock horror at the poisonous concoction. Thus Chamberlain exclaims that it is "perfectly ridiculous" to make Jews a general scapegoat for the problems of the time. On the other hand it was absolutely necessary to "settle once and for all who could and could not be regarded as Teutons".

Complimenting the Jews for being the one race that had "established as its guiding principle the purity of the blood", he none the less left his readers in no doubt that in the plot that struggle between Germanic and non-Germanic life philosophies the Jews stood on the wrong side of the Great Racial Frontier, an alien presence within the Teutonic heartland.

Chamberlain designated the year 1200 as the turning-point in world history when the Teuton/Aryan/Indo-European/Nordic race first gained consciousness of its momentous destiny.

Although he included Celts and Slavs in the master race - albeit less pure specimens - Chamberlain never gave a formalist definition of race. Indeed he once remarked that whoever behaves like a Teuton is a Teuton.



Chamberlain with Cosima Wagner: he steeped himself in German culture and language at the age of 15

What above all else had continued to thwart and impede this historic self-awakening was *Volkerchaos* or "chaos of peoples". It was imperative that the existing "state without a nation", "that union of mongrels bound together only by a community of taxes and superstitions", be destroyed, lest, like Rome, miscegenation caused irreversible decline. Those sectors ("probably all") of contemporary life that had become "slaves of the Jews" had to be reclaimed. Teutonic blood must be purged "of all the poison of that chaos".

Donning the mantle of science as well as poetry, civilization as well as culture, Chamberlain felt compelled to confront that awesome question: was Christ a Jew? Probably no, a probability that scientifically speaking "is almost equivalent to a certainty". Historical research revealed to him that Christ possessed not a drop of "genuinely" Jewish blood; he is one of ours.

In *Evangelist of Race*, the definitive study of Chamberlain, Geoffrey G. Race, Blood and Struggle - was gradually stewed up, with the chef of the house occasionally lifting up his hands in mock horror at the poisonous concoction. Thus Chamberlain exclaims that it is "perfectly ridiculous" to make Jews a general scapegoat for the problems of the time. On the other hand it was absolutely necessary to "settle once and for all who could and could not be regarded as Teutons".

Nazi ideologists such as Alfred Rosenberg had sound reasons for elevating Chamberlain into their pantheon as "the apostle and founder of the German future". It was to the "most respected and dear Herr Hitler" that Chamberlain (who became a Nazi Party member), corresponded so warmly after their meeting in 1923. The fourth point of the Nazi Party Programme testified at least in part to Chamberlain's success in setting "once and for all" who was a German: "None but those of German blood, whatever their creed, may be members of the nation. No Jews, therefore, may be a member of the nation."

Chamberlain's contribution was to help establish a secure ideological bridgehead, especially within the middle-class, for proto-fascist doctrines. Anti-semitic newspapers such as *Die Troler Post* regularly reprinted large sections of the *Foundations*. His prescriptive exercises in Nazi thought -

Teutonic superiority, the Jewish threat, the whole ideological counter-revolution against the ideas of the French Revolution - provided many of the picture-book dots which the NSDAP cadres would so effortlessly fill in.

Above all, Chamberlain laid the foundations for what Eberhard Jäckel has referred to as the "visible systematic and inherent coherence" of Hitler's *Weltanschauung*, its messianic and Manichaean simplicity. (Destroy Jewish Bolshevism and acquire *Lebensraum*.) Geoffrey F. Field warns against the "teleological trap" of projecting Chamberlain on into the Third Reich and ignoring the fact that "intellectually and emotionally" he remained very much a Wilhelmian. Chamberlain's Nazism remained prescriptive.

A revealing example of the kind of middle-of-the-road pre-1938 position Chamberlain took on the specifics of race politics was his contribution to a debate in a Rumanian journal on whether the Jews of that country should be granted greater equality; he advocated restricting their legal rights and encouraging them to emigrate.

Had he survived on into the Third Reich Chamberlain would surely have followed the tide of that history he knew so well - the kind that flows from "the rhythm of our hearts and circulates in our veins".

Kaiser Wilhelm first read the *Foundations* back in 1901. "God sent your book to the German people and you personally to me", he wrote to Chamberlain (the two would continue to correspond for 26 years until Chamberlain's death). Chamberlain's theories were so rapturously received precisely because they provided a mandate for German imperialism, expansionism and domination, the establishment of German hegemony, became a moral imperative.

It was not in Germany alone that imperialist ideologies were undergoing a resurgence. In Britain during the nineteenth century the word "imperialism" had been transformed from a term of abuse into a patriotic catchword. The changed conditions of the 1880s in particular, with depression and intensifying trade rivalries, drew fresh life into the imperial idea. Ironically enough in his early days, Chamberlain had been something of a liberal

critic of British expansionism in South Africa, but he never applied such reservations to his adopted land. "The future progress of mankind", he wrote in 1903, "depends on a powerful Germany extending far across the earth".

The last 30 years of the nineteenth century saw European states embark on an massive programme of global expansionism. Nearly five million square miles were added to the British empire alone, making its subject population in 1900 some 400m.

One of the leading contemporary explanations of the new imperialism was put forward by the liberal J. A. Hobson, who posed the question: "How is the British nation induced to embark upon such ungodly business?" According to his analysis underconsumption at home led to a battle for markets and investments overseas; the "taproot" of the imperial tree originated in an internal economic disequilibrium and the sectional interests of rentiers, investors, and financiers.

Hobson's work exerted considerable influence - not least of all on a pamphlet V. I. Lenin wrote some 14 years later in 1916. This held that the "old capitalism" of free competition, regulated around the Stock Exchange, had been replaced by the "new capitalism" of finance controlled monopoly, thirsty for sales and investment outlets and raw materials. Although Lenin recognized that factors other than purely economic ones were at work in the struggle for empire (for example, he refers to "geographical conditions"), and his study subtitled "A Popular Outline" aimed at providing only "a general picture" of the global process, imperialism was diagnosed essentially in terms of the "domination of finance capital".

The numerous critics of purely economic explanations of imperialism have been quick to point out that the colonies acquired from the 1880s onward only rarely assumed the importance - either as investment outlets or markets - that the central grain of the theories of Lenin and Hobson would lead us to expect.

Apart from the mining areas of Katanga, Rhodesia and South Africa most of the territories occupied during the scramble for empire had no immediate investment potential.

Strategic and communication factors, the internal political dimension within Africa and Asia (as in the case of the British occupation of Egypt in 1882 after the collapse of the local regime), the actions of the settler community itself - these elements were clearly at work in the historical process alongside the configuration of economic forces.

Max Weber observed that while the empires of his own day were obviously following "the tracks of previously existing capitalist interests", non-economic motives and ideologies were none the less exerting a critical and co-determining influence on events. Indeed he argued that these "have played their part in every political overland expansion of the past, including the Crusades". The significance of the world-view crudely but tellingly fashioned out by Chamberlain derives from the catalytic impact it had in inspiring Nazi Imperialism, its mesmerizing effectiveness as an ideological lever of mass political change.

As a reviewer in the *New York Evening Post* noted in 1904 a central message of *Die Grundlagen des neunzehnten Jahrhunderts* was that "imperialism, from gross aggression, becomes a moral duty and at last an article of faith". To many it gave a kind of semi-mystical blessing to a war of the races in which no holds would be barred.

The pessimism of earlier racial theorists such as the Comte de Gobineau (whose *Essai* was published in the year of Chamberlain's birth) was Wagnerianized, cleansed of its defeatist sensibility and harnessed to the chariot of an epic and resurgent Pan-Germanism. Like all alchemists of ideology Houston Stewart Chamberlain yearned to slam open the shuttered doors of the café of history, and make murder seem some form of poetry.

The author is lecturer in sociology at Lincoln College of Technology and a former senior tutor in politics at La Trobe University, Australia.

The founder of Aryan racism

Michael Biddiss's assessment of the two careers of Arthur de Gobineau concludes that he is a writer who compels us to face the paradoxes raised by a symbiosis of talent and contempt for humanity

During the twentieth century Arthur de Gobineau has become widely known as one of the chief founding fathers of Aryan racist ideology. Yet when he died in Turin, 100 years ago this month the end came in loneliness and obscurity, and in self-imposed exile from his native France. A little earlier he had predicted it would take just such a contemptuous before his works became prophetic. By the fiftieth anniversary of his death, which fell only a few months before Hitler's seizure of power, debate about Gobineau's ideas was already far more intense than it had ever been in his own lifetime. Over the past generation or so, even beyond the epoch of Auschwitz, he has continued to attract the attention of scholars, including many concerned less with tracing the intellectual origins of Nazi racism than with evaluating his more literary achievements. Thus we are confronted by two fascinating careers, with 1882 as their link: the one through which he actually lived, and another centering on the fluctuations in his posthumous repute.

Gobineau, the son of an impoverished army officer, was born near Paris in 1816, and brought up in a royalist environment antipathetic to the egalitarian principles of the French Revolution. His early education was conducted by a private tutor who doubled as lover to his mother, a woman whose scandalous behaviour both then and thereafter did nothing to enhance young Arthur's prospects of advancement in society and employment. During a subsequent period of more regular schooling in Switzerland and Brittany, Gobineau developed an enthusiasm for German romanticism and for the still more exotic visions conjured up by the rising cult of orientalism. He was soon bent upon a literary career, and in 1835 set off to test his fortunes in Paris. There he survived as a clerk, first with a gas company and then in the postal service, while building up social and journalistic connections among the salons of the Bourbon legitimism that was contemptuous of the "bourgeois monarchy" established in 1830 for the Orleansist upstart Louis Philippe. By the mid 1840s, when he married, he had succeeded to the extent of being able to live modestly from the proceeds of his pen alone, as the author of articles on current political and literary affairs and of serialized fiction in the genre of the *roman-feuilleton*.

Of all the figures with whom Gobineau associated at this period the most crucial proved to be Alexis de Tocqueville. The latter, already famous as author of *Democracy in America*, became part mentor and part patron to the aspiring writer. His admiration for Gobineau's flair and intelligence survived the increasingly evident differences of opinion and temperament which emerged between them, and which are illustrated in their richly tense correspondence over the years from 1843 to 1859. At the heart of their wrangling lay, as John Lukacs has put it, the distinction between a Tocqueville who loved liberty more than he disliked democracy and a Gobineau who loved liberty, yet both of them were alike shaken by the revolutionary disorders of 1848, particularly in Paris. During the following summer each came to terms, hesitatingly and *faine de mieux*, with the new Second Republic of Louis Napoleon Bonaparte: Tocqueville consented to serve as foreign minister, and Gobineau as his friend's personally selected private secretary. Though the elder was soon supplanted, the younger was to remain for nearly thirty years more a member of the diplomatic service. Gobineau's first foreign posting

took him to Berne, amidst what he deemed to be the horrors generated daily by the Swiss enthusiasm for democracy. It was there that he composed his most renowned work, in celebration of an Aryan genius for an accelerating and quite irremediable descent into the barbarism of mass mediocrity. When Gobineau's jeremiad made little immediate impact he consoled himself with the thought that no better reaction should be expected from contemporaries so obsessed with the illusions of material progress. By the time the second half of the *Essay* appeared his diplomatic duties had taken him off to Tiflis. His subsequent tasks included a second Persian posting, a visit to Newfoundland, and work as minister in Athens, Rio, and Stockholm. Though the observations which he made in these places tended to be adapted to the racial framework already promulgated in the *Essay*, he did manage to produce two travel books, *Three Years in Asia* (1859) and *Journey to Newfoundland* (1861), containing much acute comment. Later in the 1860s he published a Persian history, as well as a pioneering study of religion and philosophy in central Asia. He spent 1871 in France, and the disastrous war against Prussia served simply to intensify his pessimism. Over the following years Gobineau composed a polemical assault on the new Third Republic, together with articles on affairs in Greece, Scandinavia, and Latin America. A wide range of imaginative writing also continued to come from his pen: novels such as *Typhaines Abbey* (1867) and *Sons of Kings* (*Les Pléiades*, 1874), short stories represented best by the *Tales of Asia* (1876), a drama entitled *The Renaissance* (1877), and a posthumously published verse epic called *Annals* which encapsulated much of the moral nihilism inherent in his racist theory.

Towards the end even Gobineau's personal life seemed to mirror the bleakness of his social teaching. He had become increasingly estranged from his wife and daughters, and was forced to retire from the diplomatic service. But there was some consolation not only in his *amitié amoureuse* with the Countess de la Tour but also in another late friendship that proved crucial to the cult of Gobineau in the years beyond 1882. Much earlier Tocqueville had predicted that the *Essay*, with which he himself firmly disagreed, might well win admiration from Germans. So it was to be, due above all to Gobineau's link with Richard Wagner, whose own notions about race were as crude as his music was subtle. They met first in 1876, and mutual admiration fermented to the point where the Frenchman was privileged to be at Walsried for the celebration of the composer's own two last Birthdays in 1881-2. They died within months of each other, and before long the Bayreuth Circle around the widowed Cosima was publicizing the merits of "Gobinism" as an adjunct to the perpetuation of her husband's own fame. This was the context from which emerged Ludwig Schemann's Gobineau Society in 1894 (which busied itself collecting an archive at Strasbourg), the major re-stamping of racist argument published by Houston Chamberlain five years later.

Such predominantly German celebration, and often unacknowledged plundering of Gobineau continued into the epoch of the Third Reich. A considerable number of biographies were devoted to him. The *Essay* was regularly reprinted in translation and was also condensed into a school-reader. When Mussolini found it prudent to devise his own racist legislation in imitation of the Nazis he went to Turin and paid homage at the tomb of "the prescient thinker". Yet, even from the outset with Schemann and Chamberlain increasingly through the era of fascist dictatorship, this whole cult involved subjecting the Frenchman's ideas to certain crucial distortions. Most particularly, Gobineau's own treatment of the Jews, though unflattering, was far less vicious and obsessive than that which we find in Chamberlain, Hitler, or Alfred Rosenberg. Similarly, it was only the ancient Teutons, and certainly not their debased descendants, that the *Essay* had been exempted from Gobineau's gloomy prognoses about the impossibility of sustained political and civilizational recovery. Nothing could have been more foreign to the pan-Germanic and Nazi ideologists than his contemplative stoicism in the face of now omnipresent decadence. Although they certainly accepted many of the same "facts" about race, they departed from them a far more optimistic and redemptive set of conclusions.

Gobineau built his account around the notion of three basic stocks, arranged in hierarchy. Each was alleged to possess characteristics that were permanent, except in so far as alterations ensued from any interbreeding with the rival races. Lowest rank was allocated to the Blacks, beings dominated by animal passion and equipped with very limited intellectual and moral capacities. Next came the Yellows, a breed devoted to the achievement of material satisfaction, but otherwise typified by their apathetic acceptance of mediocrity in all things. Superior to both were members of the white race, characterized by an "energetic intelligence" that sustained their love of freedom, order, and honour. Even within this third category Gobineau identified a super elite of Aryans (a term ever more in vogue since the Indo-European philological revolution around 1800), comprising those who had kept freest from mixture with other races or with more debased Whites.

The *Essay* did not, however, preach any simple theory of racial purity. The vitally tragic element in Gobineau's historical drama was that civilization could be created only by mixture between Aryan stock and some modicum of alien blood. Thus miscegenation is not only a stimulant to achievement but also an agent of eventual decay. Gobineau traced world history passing across 10 civi-



Arthur de Gobineau: predicted it would take a hundred years for his work to become properly appreciated.

about German destiny than Gobineau ever could. In the past resort, their hopes about the future of the Aryans proved far more harmful than his despair.

While Gobineau was thus frequently traduced during the interwar years, the period since 1945 has witnessed more sober endeavours to refine judgments about his contribution to the spread of the Aryan myth of blood in nineteenth and early twentieth century Europe. It is not surprising that there should have been at least two large studies, by Janine Buzend and the present author, having the *Essay* as their focus. But, less predictably, there has also been over the past two decades or so a marked accentuation of interest in a broader range of Gobineau's literary productions. Principal credit here must go to Jean Gaudinier, both for his brief yet seminal *Spécime de Gobineau* (1965) and for his inauguration in the following year of the *Études Gobineauennes* as a journal of relevant report and debate. During 1974 Jean Boissel of Montpellier published the first portion of a huge treatise devoted to the orientalist work of Gobineau, as expressed in his efforts both at imaginative and scholarly writing. Most striking of all is the fact that many of the novels and short stories have themselves reappeared in print, and that Gallimard is now in the process of issuing a selective collection of the *Oeuvres*. The literary works, in prose at any rate, stand today more highly regarded than ever for what the Penguin Companion to European Literature calls their "high intelligence, and psychologically fine, elegant irony, and passionately idealistic conception of human love".

Just before the present centenary there appeared two further notable treatments: a general biography by Boissel which valuably exploits new sources that have been coming constantly to light in recent years, and a work of close textual reading from Pierre-Louis Rey of Paris X-Nanterre entitled *L'Univers Romanesque de Gobineau*. Taken together, these new books expose quite neatly what is probably the deepest line of tension running through the work of Gobineau: the tension between the writer who prefer to view his *Essay* as a treatise on human differentiation rather than congenial inequality, and who seek to promote Gobineau's literary reputation by playing down the extent and significance of racism within the overall body of his writing. Rey claims instead that it is the theme of more foreign to the pan-Germanic and Nazi ideologists than his contemplative stoicism in the face of now omnipresent decadence. Although they certainly accepted many of the same "facts" about race, they departed from them a far more optimistic and redemptive set of conclusions.

If Rey is right, as I think he is, then the verse and prose fiction possess their own fundamentally didactic intent, and require to be treated as an integral part of a philosophy which remained stubbornly directed towards the mastering of positive truths". On this view even *Les Pléiades*, rightly the most celebrated of the novels, becomes part of the web of complementarity. According to Rey it has merely disarmed posterity, in the sense that "those who would willingly burn the *Essay* do not always recognize behind the music of *Les Pléiades* a more emphatic and more craftily convincing eulogy to the supremacy of the white race". Anyone familiar with the nearest thing to orthodoxy in recent Gobinist literary study will realize that, through this and other similar remarks, *L'Univers Romanesque* will irritate many of its keenest readers. Yet there seems likely to be wide agreement that no centennial offering could have proved more profoundly stimulating to all of those who are still striving to get Gobineau into proper perspective both as a political thinker and as a creative literary figure.

The author is professor of history and dean of the faculty of letters and social sciences in the University of Reading.

NOTICE BOARD

Noticeboard is compiled by Patricia Santinelli and Mia Goldie

Grants

Universities
Brunel
Biology - Dr R. T. Dean - £28,154 from the National Kidney Research Fund to study mechanisms of protein reabsorption and degradation in kidney tubules to discover whether reabsorption contributes to proteinuria. Dr R. T. Dean - £57,690 from the British Heart Foundation to study the control of innervation of LIM/CCA release and autoregulation.

Appointments

General
Mr Tony Church has been appointed to the Arts Council of Great Britain. Mr Church is the director of the Guildhall School of Music and Drama and is an associate artist of the Royal Shakespeare Company.
Mr Brian Emmott has been appointed the new chief executive of the Manpower Services Commission's Employment Service. He takes up his post on November 15 and will be based at the MSC's headquarters in Sheffield. Mr Emmott is currently an under-secretary at the Department of Energy and will succeed Mrs Jean Collingridge who retires shortly.

Universities

Manchester
At the Standing Conference of University Information Officers the following were elected officers: Chairman - Frank Abington; Deputy Chairman - David Barber; Secretary - Philip Aslett; Treasurer - Joanna Motion

Reading

Head of department of chemistry: Professor Terry W. A. Ross. Deputy vice-chancellor: Professor Jack Wrigley. Pro-vice-chancellor: Professor Eric Roberts.

Warwick

Lecturer, Edward M. Gray (primary school mathematics in the department of science education); John F. Hill (Engineering).

Chairs

Dr David R. Turner has been appointed to the chair of pathology in the medical school at the University of Nottingham. He succeeds Professor Ian Dawson who left at the end of August 1982. Dr Turner is consultant histopathologist at the Musgrave Park Hospital, Taunton, Somerset.

Kevin W. S. Roberts

has been appointed to a professorship in economic history in the department of economics at the University of Warwick. Professor Roberts was previously a lecturer at the University of Oxford and fellow of St Catherine's College.

Professor J. A. Anderson

reader and head of the department of statistics has been appointed to a personal professorship in statistics at the University of Newcastle upon Tyne. Professor J. A. Anderson, professor of statistics and agronomy at Newcastle since 1958 has been granted the title of emeritus professor upon his retirement on October 1, 1982.

News

A register of current research into alcohol use, misuse and effects is being compiled by the alcohol research group at Edinburgh University. For further information and forms please contact Jane Patison, Alcohol Research Group, University department of psychology, Royal Edinburgh Hospital, Morningside Park, Edinburgh EH10 5HF.

Polytechnics

Oxford
Dr Paisey Healey and Dr Martin Elson of the department of Planning, Oxford Polytechnic have been awarded a research contract (value £105,350) by the Department of the Environment to study the extent to which structure and local plans are being implemented and their influence on the development process. The research will be conducted in two sub-regions outside the South East.

Research grants

During our recent move into new offices our grants file went astray. We would be grateful if institutions which sent us details of their grants over the last three months, which have not been published in the *THES*, would kindly forward copies of these. We apologise for the inconvenience and thank you for your help in advance.

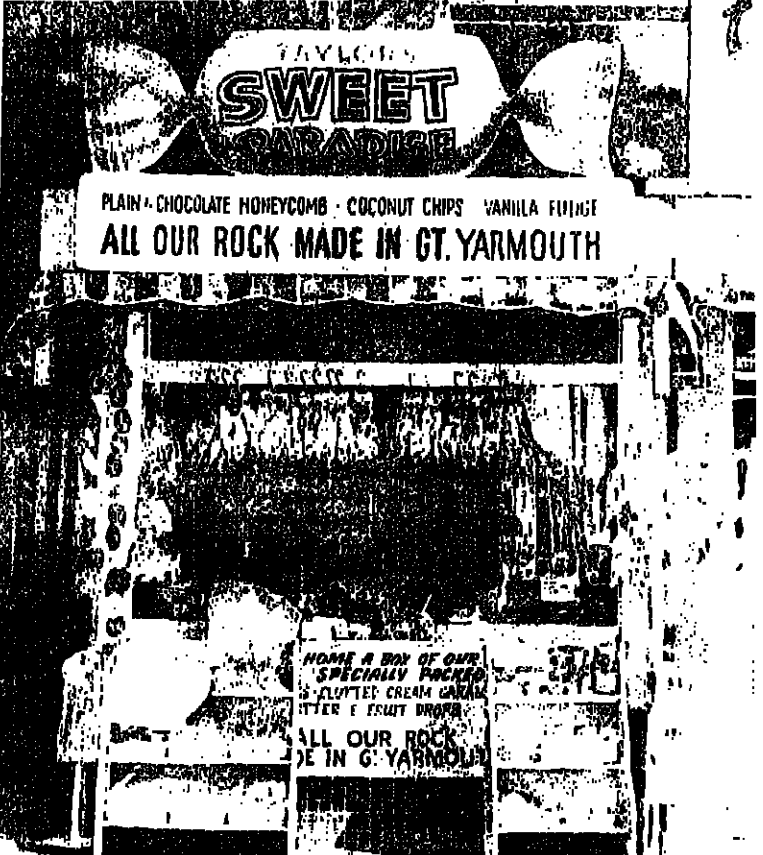
Open University programmes October 9 to October 15

Saturday October 9

- 8.01 Contemporary Issues in Education. Future Issues (E234; prog 20).
- 8.02 History of Architecture and Design 1800-1939. The Housing Question (A205; prog 20).
- 7.15 Selecting and Satisfying Education in Portugal (11) The Strategic Context (E232; prog 11).
- 8.02 The 19th Century Novel and its Legacy. The Novel and Film (A232; prog 10).
- 7.18 Introduction to Pure Mathematics. The Exams (M30; prog 2).
- 7.40 Computing and Computers. Co-operating Computers at Leamington (M25; prog 1).
- 8.05 Materials Under Stress. The Turbine Blade - Can Ceramic Tiles be Applied? (A234; prog 1).
- 8.05 Arts Foundation Course. The Early Work Hall (A101; prog 1).
- 8.05 Cognitive Development. Language and thinking from birth to adolescence. The Welsh Sheep Race (M2; prog 1).
- 8.05 The Promoted Land - A Post Script (E34; prog 1).
- 8.05 Systems Organisation. The Management of Complexity. IATA (2). Negotiation in Tel Aviv (E235; prog 10).
- 10.10 The Earth: Structure, Composition and Evolution. Collapsing Continents (S237; prog 10).
- 10.25 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 11.00 The Central English. Changing Culture 1918-1969. Man of Mode (A235; prog 14).
- 11.00 Risk. Revisiting Unpleasant (U201; prog 1).
- 12.00 Graphs, Networks and Design in Combinatorics (T231; prog 10).
- 13.00 The Promoted Land - A Post Script (E34; prog 1).
- 13.05 Applications of Mathematics. An Evolutionary Model (A128; prog 11).
- 14.20 Applicants for Admission - 2
- 14.20 History. Economics. Continental Can at the E.C.C. (D234; prog 8).

Sunday October 10

- 8.00 Biology. Heat and Behaviour. States of Mind: Levels of Interaction (S126; prog 10).
- 8.00 Systems Performance: Human Factors and Systems Failure. Part 1. Revision. Fall of Road (T1342; prog 10).
- 7.18 Materials Engineering. The New Fibres (S23; prog 1).
- 8.00 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 8.00 The Earth: Structure, Composition and Evolution. Collapsing Continents (S237; prog 10).
- 10.25 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 11.00 The Central English. Changing Culture 1918-1969. Man of Mode (A235; prog 14).
- 11.00 Risk. Revisiting Unpleasant (U201; prog 1).
- 12.00 Graphs, Networks and Design in Combinatorics (T231; prog 10).
- 13.00 The Promoted Land - A Post Script (E34; prog 1).
- 13.05 Applications of Mathematics. An Evolutionary Model (A128; prog 11).
- 14.20 Applicants for Admission - 2
- 14.20 History. Economics. Continental Can at the E.C.C. (D234; prog 8).



Sweet Paradise: Frank Taylor's paintings depict the common appeal of English seaside kiosks, huts, stalls, piers and fairground fun. They are garish, cluttered and use a variety of materials and textures. A freelance illustrator and graphic designer, Frank Taylor is also head of the illustration course at Amersham School of Art and Design. An exhibition of his latest work can be seen until October 29 at the Bloomsbury Gallery No. 1, University of London, Institute of Education, Bedford Way, London WC1.

Forthcoming Events

- The University of Newcastle is hosting a number of lectures during the autumn.
 - "The Responsibility of the Psychiatrist in his Society" by Sidney Bloch, consultant psychiatrist, Warfield Hospital, and clinical lecturer in psychiatry, University of Oxford is on Thursday, October 14 at 5.30 pm.
 - "Mind in Science" by Professor R. L. Gregory, professor of neurophysiology and director of the brain and perception laboratory, University of Bristol is on Thursday, October 21, at 5.30 pm.
 - "The Role of Universities in the Service of British Agriculture" by Professor Wainwright Williams, professor of agricultural botany, University of Glasgow is on Thursday, October 28 at 5.30 pm.
 - "Oral pathology: prospect and retrospect" by Professor J. V. Somers, professor and head of the department of oral pathology, Newcastle Dental School is on Tuesday, November 2 at 5.30 pm.
- A QIAD conference "Further Education and Employment for Young People with Special Needs" is on October 23 1982, at the Central Electricity Generating Board headquarters, Guildford House, 15 Newgate Street, London EC1A 7AU.
- "The Changing Language of Psychology", a symposium on the history of psychology, is on Saturday October 23 at North East London.
- University of Glasgow forthcoming conferences include "The Microchip and the Third World" on Saturday October 23, Speaker Dr Raphael Kaprielian, Institute of Development Studies, University of Sussex. Fee £2.25 at the Boyd Orr Building, University of Glasgow, University Avenue.
- A World Peace conference series, will be held on Saturday afternoons from 2pm-5pm in the department of adult and continuing education, 57/61 Oakfield Avenue, Glasgow G12 8LW. "The Middle East between War and Peace" is on October 16 and the speaker is David B. Caplan, department of politics, University of Aberdeen.
- "Arms and the Arms Trade" is on November 13, and the speaker is Gavin Kennedy, department of economics, University of Strathclyde.
- "Trends in International Terrorism" is on December 4, and the speaker is Professor Paul Wilkinson, department of politics, University of Aberdeen.
- "Latin America" is on January 15, 1983 and speakers are Philip J. O'Brien and David Stansfield, Institute of Latin American Studies, University of Glasgow.
- "First World, Third World" is on February 12 and the speaker is Professor Laing Bown, department of adult and continuing education, University of Glasgow.
- "One World" is on March 12, and the speaker is Eric Liggett, department of adult and continuing education, University of Glasgow.
- Industrial Relations. Women in Trades Unions (T201; prog 4).
- Political Economy and Taxation. Themes and Perspectives of D322 (D322; prog 33).

Tuesday October 12

- 8.02 The Commit of Education in Britain. Adults and Education (E232; prog 11).
- 6.18 Physiology of Cells and Organisms. Biological Clocks and Cell Movement (S212; prog 8).
- 6.05 Twentieth Century Poetry. Modernism and Tradition (A236; prog 10).
- 6.05 Contemporary Issues in Education. Unemployment (E234; prog 20).
- 22.40 Computing and Computers. Co-operating Computers at Leamington (M25; prog 1).
- 24.00 History of Architecture and Design 1800-1939. The Housing Question (A205; prog 20).
- 24.00 The International Style. Five Years After (A206; prog 11).

Monday October 11

- 8.02 Biology. Heat and Behaviour. States of Mind: Levels of Interaction (S126; prog 10).
- 8.00 Systems Performance: Human Factors and Systems Failure. Part 1. Revision. Fall of Road (T1342; prog 10).
- 7.18 Materials Engineering. The New Fibres (S23; prog 1).
- 8.00 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 8.00 The Earth: Structure, Composition and Evolution. Collapsing Continents (S237; prog 10).
- 10.25 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 11.00 The Central English. Changing Culture 1918-1969. Man of Mode (A235; prog 14).
- 11.00 Risk. Revisiting Unpleasant (U201; prog 1).
- 12.00 Graphs, Networks and Design in Combinatorics (T231; prog 10).
- 13.00 The Promoted Land - A Post Script (E34; prog 1).
- 13.05 Applications of Mathematics. An Evolutionary Model (A128; prog 11).
- 14.20 Applicants for Admission - 2
- 14.20 History. Economics. Continental Can at the E.C.C. (D234; prog 8).

Wednesday October 13

- 8.02 Evolution. Prehistoric People: Unearthing our Past (S204; prog 10).
- 6.18 Mathematical Models and Methods. Modelling Game 1 (M1234; prog 2).
- RADIO 3 (VHF)
 - 6.58 The Commit of Education in Britain. Adults and Education (E232; prog 11).
 - 6.18 Physiology of Cells and Organisms. Biological Clocks and Cell Movement (S212; prog 8).
 - 6.05 Twentieth Century Poetry. Modernism and Tradition (A236; prog 10).
 - 6.05 Contemporary Issues in Education. Unemployment (E234; prog 20).
 - 22.40 Computing and Computers. Co-operating Computers at Leamington (M25; prog 1).
 - 24.00 History of Architecture and Design 1800-1939. The Housing Question (A205; prog 20).
 - 24.00 The International Style. Five Years After (A206; prog 11).
- RADIO 3 (VHF)
 - 6.58 Social Work, Community Work and Society. Women's Welfare and Work (D236; prog 17).
 - 7.38 The Enlightenment. Servants, Masters and the Enlightenment (A204; prog 33).
- 8.02 Organic Chemistry. Where from next? (S20; prog 10).
- 7.05 Systems Performance: Human Factors and Systems Failure. Part 1. Revision. Fall of Road (T1342; prog 10).
- 7.30 Criminal and Marine. MARS The Viking Mission (S130; prog 9).
- 7.10 Materials Engineering. The New Fibres (S23; prog 1).
- 8.00 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 8.00 The Earth: Structure, Composition and Evolution. Collapsing Continents (S237; prog 10).
- 10.25 The Environment. Mountainous Life in a Chinese (A234; prog 10).
- 11.00 The Central English. Changing Culture 1918-1969. Man of Mode (A235; prog 14).
- 11.00 Risk. Revisiting Unpleasant (U201; prog 1).
- 12.00 Graphs, Networks and Design in Combinatorics (T231; prog 10).
- 13.00 The Promoted Land - A Post Script (E34; prog 1).
- 13.05 Applications of Mathematics. An Evolutionary Model (A128; prog 11).
- 14.20 Applicants for Admission - 2
- 14.20 History. Economics. Continental Can at the E.C.C. (D234; prog 8).

Recent publications

Help to sort out appropriate qualifications for clerical and administrative staff in local authorities is provided in a new booklet published by the Local Government Training Board. *Clerical and Administrative Staff: a guide to post entry qualifications* covers the needs of many authorities and includes a list of entry qualifications and basic study routes. First post entry qualifications and subsequent studies. Copies are available from G.L.T.B. Publications, Fourth Floor, Arndale House, Arndale Centre, Luton LU1 2TS, price £2.

Rooms used by 16-19-year-olds in schools and colleges often have a mixture of new, old-fashioned and adapted furniture. This makes it difficult to changeability and versatility. *Designing for the 16-19 age group: a guide to the design of furniture for the Department of Education and Science schools and colleges building programme.* These problems, the booklet argues, could easily be overcome if furniture was designed to standard dimensions and accepted specifications. It points out that planners should pay much greater attention to the seating needs of students in laboratories and workshops and should not assume that they do most of their work standing up. Design Note No. 91 is available from Publications Despatch Centre, Government Buildings, Honeypot Lane, Stanmore, Middlesex HA7 1AZ.

Among the subjects covered by the 1981 report of the Government Chemist are new materials for dentistry and hospital work, oil spillage pesticide residues in human milk, and accommodation for laboratory workers. In dentistry and hospital work the report highlights significant advances made in the formulation of glass ionomer cements and in the use of bonding materials. It also covers transudate and can be used as a coating in splinting operations. The report is available from the HMSO, price £8.50.

How to Study: a practical guide to learning and studying by Gordon Van Praagh is intended to help all students at school, university or studying on their own, to learn more effectively. It gives practical advice and guidance on learning techniques based on the principles of educational psychology. The author says these principles are only referred to when needed as a basis for practical suggestions. Sufficient description of the mental processes in learning, assessing and recall is given to enable the reader to understand the author's advice on learning techniques. It is available from the author, 23 Blackwater Lane, Crawley, West Sussex RH10 4RN, no price given.

Courses

The University of Warwick is to offer a new BSc degree in microbiology and microbial technology from October next year. This has resulted from collaboration between the departments of biological sciences and environmental sciences both of which attract substantial grants from both research councils and industry. The new degree will aim to bring students into contact with the most recent discoveries in key areas of microbiology, and is part of a continuing transfer. This is spear-headed by the science park to which the university hopes to attract a number of leading biotechnology companies. Knowledge acquired during the degree is expected to be of direct relevance to new industries.

academic journals

Academic journals are in a state of flux. Threatened by ever-increasing costs, cuts in library budgets, and the uncertain impact of new technology, they remain nevertheless essential instruments of intellectual progress. This *THES* survey looks at journals from a variety of perspectives

Publish or perish?

As they sip their mugs of instant coffee, scientists gossip about the follies of authors, editors, and referees. They deplore the abysmal quality of the papers that get accepted - and in the same breath curse the anonymous referee who has still not approved their own submission. They revile commercial publishers for encouraging the proliferation of new journals - and then agree to serve on the editorial board of just such a publication in their own favourite speciality. They commiserate with one another over the difficulty of tracking down an article in some very obscure publication - and then approve of the printing and distribution of the proceedings of the little conference they went to last week in Upper Volta. They complain bitterly of the cost of journal subscriptions - but will never allow their departmental librarian to cancel a serial which they have actually not consulted for about 17 years. In other words, they behave just as inconsistently about the communications system of their profession as they do in most other aspects of their lives.



Many of their complaints - which can be mirrored, of course, in other fields of scholarly endeavour - are justified. Citation counts and readership surveys confirm the deplorable skewness of the distribution of quality in the primary scientific literature. For every good paper, there are just over nine others that are not referred to again except by their proud authors and are apparently not read

accepted for publication after it has been judged to be really outstanding by acknowledged experts, and allotted to the single international journal specialising in the precise research area to which it contributes. Any journal that did not make should be struck off the list of authoritative scientific publications, and not allowed to be cited in reputable papers. A combined policy of quality control and rationalization of scope would soon suppress the symptoms of proliferation, even if the disease itself could not be altogether cured. Alas for zealous rationality: this is very unlikely to happen, and if it does it will probably be for the wrong reasons. Until recently, in the happy era when research funds flowed like wine in a brothel, this was not an issue worth the breath of an argument. Apart from a few dyed-in-the-wool radicals, most scientists were reasonably satisfied with the system as a whole, even if they groused about its workings in detail. It was an historically evolved and socially moulded institution, which they had learnt to manipulate as authors and readers, and which they had the resources to sustain as editors or librarians. If necessary, the distinctions of proliferation could be fixed by advanced computer technology, in the form of systems for information retrieval such as citation indexing, KWIC (sorry, Key-Word-In-Context) indexing, Selective Dissemination of Information, and other ingenious, if expensive devices. The endemic complacency has always been tardiness of publication. In an age when an image can be transmitted from the surface of Mars and reproduced world-wide within a couple of hours, it is a complete mystery why it has to take a couple of years - as long as in Newton's day - to get into print with a few thousand well chosen words on some equally profound scholarly matter.

Economic constraints put the pressure on for change. Should the communication system be thoroughly shaken up, to meet the supply-side needs of a brand new, highly relevant research and development sector of the national economy, or will it be staid and introduce a few new gimmicks like the electronic journal? Judging by the very faint interest shown in all such matters by our scientific post brass, the latter policy will win by default, with the tacit approval of the lower ranks. If a crisis is upon us, it will have to appear much more alarming before it frightens the scientific and scholarly world to change its ways. In this, as in most things, belated adaptation to absolute necessity is its traditional response to a challenge. But for would-be reformers and reactionary defenders alike, there must be some interest in why the present system has such obviously inefficient characteristics. This might be a suitable topic for an essay question at the end of a course of science studies, for it requires an understanding of the nature of science itself, in all its personal, social, and cognitive aspects. The communication system of science is its core institution, where all these aspects converge and coalesce. There is a psychological dimension to the question, as every scholar learns from bitter experience: there is a sociological dimension, since periodicals are the medium by which scientific communities are held together. There is obviously a philosophical dimension, since knowledge has to be made ex-

JOURNALS published by Holt, Rinehart and Winston

Journal of Advertising provides an international forum for the serious discussion of important issues and developments affecting advertising and its role in the economic process. For academics, critics, advertising and marketing practitioners, it presents articles and reviews on a wide range of subjects in marketing and communication. (Published four times a year. Single issues £6.50 in UK, £7.00 overseas; annual subscription £15.00 in UK & Rest of World. ISSN 0261-9903)

School Psychology International provides a world forum for psychologists and educators to present, discuss and pool their experiences of working with children, teachers and parents. Since its launch in 1979 the Journal has become a focal point for the growing international movement within the profession, reflecting the increasing use of psychology in the development of educational programmes. (Published four times a year. Single issues £6.50 in UK, £7.67 overseas; annual subscription £17.50 in UK & Rest of World. ISSN 0143-0343)

UKRA Journals - published by Holt, Rinehart and Winston for the United Kingdom Reading Association. Reading This journal for teachers on the study and improvement of reading and related skills relates current theory to classroom practice, and keeps teachers up to date with the latest literature and teaching aids. (Published three times a year. Annual subscription £15.00 in UK & Europe, £17.00 outside Europe. ISSN 0034-0472)

Journal of Research in Reading provides a refereed forum for researchers into reading from both Britain and Europe by reporting on empirical studies in reading and related fields. (Published twice a year. Annual subscription £8.50 in UK & Europe, £10.50 outside Europe. ISSN 0141-0423)

To subscribe to any of the above journals, please send the name of the publication plus your own name, address and payment to: Holt, Rinehart and Winston, Accounts Dept., 1 St. Anne's Road, Eastbourne, East Sussex BN21 3UN. Cheques should be made payable to Holt, Rinehart and Winston Ltd. For further details and sample copies please write to Publicity Department at the same address, or telephone 0323-638221.

Introducing a new concept in scientific serials publishing: single-theme TRACTS from Harwood academic publishers

Each issue of the journals described below is organised around a single theme, explored in depth. Thus you can easily obtain any number of special relevance to your research interests, while libraries can acquire the entire series through an annual subscription.

LIFE CHEMISTRY REPORTS

Edited by A. M. Michelson, Institut de Biologie Physico-Chimique, France; J. V. Bannister, University of Oxford, UK. This new journal publishes review articles and up-to-date research material on the latest developments in chemistry as related to life sciences. The reader will gain a perspective on advances in such fields as biochemistry, molecular biology, pharmacology and medicine. Summer 1982 c. 400pp. per volume. ISSN: 0278-6281 \$88.50 per vol.

REMOTE SENSING REVIEWS

Edited by François Becker, Université Louis Pasteur, Strasbourg, France. Designed for a wide readership of scientists and engineers active in remote sensing as well as users interested in specific applications, this new journal covers both theory and practice. Uses of the new technology are well illustrated. 1982 c. 500pp per volume. ISSN: 0275-7257 \$78 per vol.

MATHEMATICAL REPORTS

Edited by J. Dieudonné, Académie des Sciences, Paris, France. Mathematical Reports is a series of in-depth reviews assessing the state of the art in mathematics. Intended primarily for professional and advanced students, Mathematical Reports will be rigorous in its treatment, supplying the intellectual tools necessary for an appreciation of the present position as well as a framework upon which new developments may be based. Each report will be a minimum of approximately sixty pages. Autumn 1982 c. 400pp. per volume. ISSN: 0275-7214 \$92 per vol.

SULFUR REPORTS

Edited by Alexander Seening, University of Aarhus, Denmark. Sulfur Reports is devoted to both short and long reviews covering important research topics in academic and technological areas of sulfur chemistry. Since 1980 c. 360pp per volume. ISSN: 0196-1771 \$98 per vol.

Harwood academic publishers

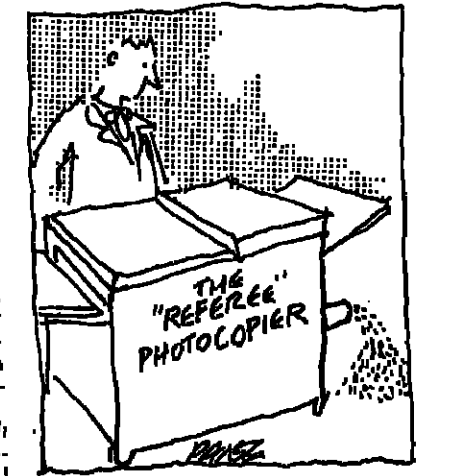
Does your library subscribe to these important new journals?

Please send for free specimen copies

Earth & Environmental Sciences	CONTINENTAL SHELF RESEARCH ENVIRONMENTAL TOXICOLOGY & CHEMISTRY JOURNAL OF AFRICAN EARTH SCIENCES QUATERNARY SCIENCE REVIEWS
Medical Sciences	ADVANCES IN ORTHOPEDIC PLASTIC & RECONSTRUCTIVE SURGERY EPILEPSY EPILEPSIA THE HEALTH SERVICES JOURNAL OF ELECTROPHYSIOLOGICAL TECHNIQUES JOURNAL OF PHARMACEUTICAL & BIOMEDICAL ANALYSIS
METABOLIC BONE DISEASE & RELATED RESEARCH	MAGNETIC RESONANCE IMAGING PROGRESS IN RETINAL RESEARCH
Social, Behavioural & Information Sciences	THE ESP JOURNAL: An International Journal for English for Specific Purposes FUTURIBLES INTERCIENCIA INTERNATIONAL JOURNAL OF HOSPITALITY MANAGEMENT INTERNATIONAL JOURNAL OF MICROGRAPHICS & VIDEO TECHNOLOGY JOURNAL OF SAFETY RESEARCH JOURNAL OF MARKETING ABSTRACTS NEW IDEAS IN PSYCHOLOGY OPTIC REVIEW WORK IN AMERICA INSTITUTE STUDIES IN PRODUCTIVITY WORLD LANGUAGE ENGLISH
Journals in Other Fields of Interest	CIVIL ENGINEERING FOR PRACTISING & DESIGN ENGINEERS OUTLOOK ON AGRICULTURE POLYMER LETTERS TOURNAIMENT CHIESA ZOOLOGICA SOCIETY

PERGAMON PRESS
Oxford, New York, Toronto, Sydney, London, Harwood, East Sussex, USA

Processing the words in a readable way



Ten years ago it seemed to many of us involved with the publication of learned journals that the days of the conventional journal were numbered. The question being asked was not whether, but how long the classical journal would continue to exist, and estimates of 10-15 years were not uncommon.

There were three principal factors expected to contribute to its disappearance. First was the rapid escalation of production costs, which at that time showed no sign of leveling out. Secondly, sales to paid-up society members were plummeting. The habit of acquiring personal sets of occupation-related research journals was not being transmitted from the older to the younger generation, partly because of a change in attitude, and partly because of the increasing use and misuse of photocopying. Although in general a learned society does not expect to profit from individual journal sales to members, who receive a substantial discount, a large number of member subscribers does necessitate a long print run, and the more journal copies produced the lower the unit cost.

The third factor, just becoming apparent, was the pressure on library budgets. In the absence of lengthy member subscriber lists, learned societies were becoming increasingly reliant on sales to libraries; such sales were the only remaining means of generating substantial income. It became necessary therefore to introduce a greater price differential between member and non-member (ie library) subscribers. Furthermore, commercial publishers were becoming increasingly aware that the institutional library was a sitting target for exploitation. In order to provide an adequate service in any subject

area, a university library must subscribe to all the principal journals in that area. By dividing the subject matter into smaller pieces, and producing journals corresponding to only the most rapidly developing fields, it was possible for the less philanthropic commercial enterprises to acquire a large share of the market. Provided that the resulting journals were of reasonable quality, the pressure on a library to subscribe was considerable, and the resulting financial squeeze was inevitably to the disadvantage of the learned society.

Many societies resisted the temptation to compete with the commercial world. It was felt that the increasing fragmentation of the primary research literature was a grave disservice to the academic community. Nevertheless, it was hard to stand back and watch the profit-taking while sales of the older-established journals steadily dwindled.

All these factors supported the view that a study of alternative means of disseminating research results was badly needed. However, there were also arguments other than economic ones suggesting that the interests of research workers could be better served by a different approach. The "information explosion", most rapid in the 1960s, was continuing to present serious problems to the worker anxious to keep up with all the available literature in his or her chosen field. Although abstracting services in some subject areas were extremely efficient, they were (and still are) limited by being essentially fact-based rather than idea or concept-based. Furthermore the delay inherent in abstract production results in a lack of currency critical in fast-developing subjects. It was recognized that the primary liter-

ature was attempting to fulfil two distinct needs: alerting the reader to new discoveries; and providing a permanent archive. These functions were felt not to be entirely compatible, and a number of experiments were carried out to see whether some form of dual publication would prove acceptable.

The general idea was to provide on the one hand a complete and detailed account of a piece of research for the archive, and on the other a synopsis which would satisfy the needs of all readers except those very closely involved in the same type of work. Synopses differed from abstracts in being rather longer, and less telegraphic, allowing some scope for discussion. Both forms of the journal were to be made available simultaneously. The synopsis were printed and distributed in the conventional way, but the archival part was produced in some other format, such as microfilm, or a photocopy of the author's typescript made available on request. It was in the reproduction of the archival version that substantial financial savings were possible.

One of the more successful such experiments is the *Journal of Chemical Research*, published as a cooperative venture by Chemical Society (now the Royal Society of Chemistry), the Société Chimique de France, and the Gesellschaft Deutscher Chemiker. In the synopsis journal (which is typeset), authors are restricted to two pages per article, and are encouraged to employ diagrammatic presentation (to which chemistry particularly lends itself); the archival version is published by photoreproduction of the author's typescript in two different microforms: 98-frame microfiche (for which the reader needs viewing equipment) and

a three-to-one direct photoreproduction on paper (miniprint: just readable with the naked eye, easily so with a reading glass). Subscribers are offered a choice of microform, and in ordering the journal have always shown a marked preference for the microfiche. However, a recent questionnaire survey of authors/readers showed a substantial preference for miniprint. This anomaly perhaps reflects a lack of adequate consultation between librarians and their customers.

The *Journal of Chemical Research* began publication in 1977; its economic viability is now established and its future seems assured. However, neither this journal nor (so far as I am aware) any other journal of its kind has succeeded in its initiators had hoped. To some extent this can be attributed to the innate conservatism of journal users. All three societies sponsoring the *Journal of Chemical Research* continued (and continue) to publish conventional journals, and although the advantages of the new journal (including faster publication) were well publicized, no real pressure was or indeed could be brought to bear on authors to submit papers. While the conventional journals were still performing adequately, there was no possibility that any of the sponsor societies would discontinue them in favour of the untried newcomer.

It is tempting to regard the *Journal of Chemical Research* as a successful experiment, proving that such a publication can replace the conventional journal if and when economic pressures become too great. There is, no doubt that this is true. However, one must also consider possible alternatives.

Concurrent with the dual journal experiments, there has been much

discussion of other ways of disseminating research results. The information science literature is littered with proposals and prognostications, mostly involving the use of new technology. The temptation to implicate the wide variety of new electronic gadgetry in devising new publications systems is irresistible. The most radical suggestions, commonly referred to collectively as the "electronic journal", involve the passage of information from the research worker to his audience without any intervention of the printed word. Material is stored in machine-readable form, and transmitted to whoever wants it (and knows how to ask for it) via the telecommunications network. Much has been written on the practicability of such a system. In its simplest form it would circumvent the present network of relationships involving authors, referees, editors, libraries, and readers, making possible untrammeled communication between research workers. However, it is unlikely that the superficial attractions of such an arrangement would be enough to outweigh its implicit lack of controls. If the electronic journal

academic journals

explicit when it is communicated. To complete the list of metascientific disciplines involved in such a question, the history of science would show the development of the communication system as a major factor in the origin and growth of modern science, and its incorporation into society as a whole.

The historical rate of growth was, of course, enormous. The very first lecture of the course should have been illustrated with Derek de Solla Price's famous graph of the "proliferation" of primary and secondary scientific journals over the centuries. It is an exponential curve, doubling regularly about every 15 years, will pauses for an occasional world war. It seems to have levelled off a bit lately in sympathy with the peaking of funding and employment for scientists, but has not yet gone into a decline. How is this continual expansion of the scientific literature to be explained? The simplest hypothesis - not, so far as I know, confirmed by a direct count of heads - is that it is proportional to the corresponding expansion in the number of active scientific authors. Taking account of the increase in the proportion of papers with several authors, scientists nowadays write about the same number of papers per head - on the average - as they have always done. Each periodical, as it tries to accommodate more and more papers, must either divide and subdivide into more manageable, more specialized sections, or it must see the papers it rejects being taken up by new journals eager to get into the market. It is just the biological process of specialization, that occurs when a population is growing and pressing to colonize a new territory.

The immediate "communication environment" of the individual scientist may not really have changed very much over several centuries. Every scientist, in every period, will be aware of the growth and speculation of the literature in which he or she is interested, and begin to complain of "the impossibility nowadays of keeping up with the proliferating literature of my subject". There have always been "too many scientific journals"; but a symptom of the more than a symptom of the competitive pressure of research on the individual psyche, obsessed with the thought that the very item of information one needs in order to make a truly original discovery might be hidden away in one of those journals one has not yet had time to read.

The cynical slogan "publish or perish" is said to dominate the psychological dimension of science. But surely there are more yardward factors than a calculated exchange of "contributions" for "recognition", by anthropological analogy with a potlatch ceremony. Why, for example, do some quite competent scientists pepper the periodicals with innumerable scraps of research, knowing perfectly well that they and their academic peers esteem quality far above quantity. Why, on the other hand, do some extraordinarily fertile scientists - Henry Cavendish is a famous case - publish only a fraction of all that they have discovered? Of course there is an enormous range in the ability of scientists, but is this really measured by indicators of productivity calculated in papers per annum. There is a personal variable here that is not at all irrelevant to the manner in which research results eventually become public property.

The traditional system of scientific publication provides outlets for contributions of a wide range of quality. It is thus adapted to a certain breadth and balance in the distribution of research ability, career ambition and literary craftsmanship in the community it serves.

There is a school in the sociology of science that treats the primary journals as geological strata, to be examined for evidences of the evolution of cognitive species and genera. This school is hooked on the methodology of co-citation analysis. Scientific authors are regarded as linked if they cite one another, or are cited together by other authors. A linked cluster of authors is thus an objective definition of one of those "invisible colleges" of scientists supposedly working in the same problem area and sharing common intellectual interests. This methodology does indeed generate a preliminary map of the network of cognitive relationships within a speciality, although it must then be corrected for the informal influences that have actually shaped its development. It takes no account of journals as social institutions in their own right. There is a wealth of social action in the writing of papers, their selection for publication, their transformation into printed pages, and the manner in which they are made.

A learned journal has both practical and symbolic social significance. Try the experiment of starting a small scholarly society on any specialized subject. With a year or so, there will have to be a newsletter reporting group activities. This will soon be carrying reviews of relevant books, brief summaries of conferences, and comments on controversial issues within the field. In due course, members of the society will be sending in research papers, some of which will be so bad that the editor had to find some way of rejecting them without personal embarrassment. It can only be a matter of time before you find your hands full with a thriving scientific periodical, filling a specialized niche in the intellectual ecosystem, complete with a system of referees to maintain its quality. This is how many learned journals got started, and same natural process can still be observed in many little corners of the academic world. Whether or not commercial publishers drive this process, or only exploit it for profit, a learned journal is a characteristic manifestation of

communality in this world, and seems to have symbolic value far beyond its obvious practical functions.

At the very heart of the communication system of science and scholarship lies the practical problem of editorial selection for publication. The device of "peer review", as the Americans call it, is a brilliant social solution to this problem. This procedure is continually criticized, both by reference to hard cases of error and injustice and by broad principle. Some of this criticism must be taken very seriously indeed - especially when it is backed up by very convincing evidence of ignorance or prejudice in their recommendations of referees. But any social institution that exists to mediate between the will of the individual and the priorities of the group is bound to be a focus for discontent. This task can be done in many ways, autocratically or democratically, bureaucratically or paternally, labouriously or lightly, anonymously or publicly, fairly or unfairly - but it is a mistake to believe the anarchist's claim that if only people were wiser and better it need not be done at all. Unfortunately, this is not an easy lesson to teach in an introductory course of science studies.

The moment of real maturity for a scientist is when he or she is invited to act as a referee for somebody else's paper. Until then, the anonymous referee's reports on one's own submissions have seemed unreasonable attacks on ego's competence and confidence; now, in a dramatic reversal of roles, one must act as the representative of the community and guardian of its highest standards of rationality and integrity.

Our present-day system of selection of communications for open publication, with its delicate balance of rights and responsibilities between authors, editors and referees (in many cases, the same guys wearing different hats) is more than a social practice that has evolved historically out of a traditional institution; it also embodies an epistemology. The philosophy of science has at last escaped from the logical chains of positivism into a much more open landscape, where anything is possible, even if not anything will go. The conjectures and refutations that are said to be the major constituents of the scientific method are also the characteristic constituents of the scientific papers in any primary scientific publication. If this "method" is, indeed, hypothetico-deductive, then how else could it be put into practice on a large scale except through a public social apparatus of this kind, where there is just enough separation of the hypothesizing, predicting, and verifying roles to keep the action going, and keep it clean? The philosophical contribution to our course would thus be fully exercised by the proposed test question. Many other ways of organizing the publication of scientific information and argument could be devised, but if they altered significantly the balance between the empirical and the conceptual, between individual originality and collective authority, they would generate a slightly different sort of knowledge, of a different degree of fundamental validity, and of a different standard of practical reliability.

I do not say that large changes in the communication system of science and scholarship will not, or should not happen. The nature and social functions of science are themselves changing rapidly, in response to the immense demands that society makes upon it, in almost every aspect. I merely would insist that there are deeper considerations about learned journals than whether there are too many of them, or they cost too much, or are of uneven quality, or take too long to produce, or even whether they have been made obsolete by technological progress.

John Ziman

The author is visiting professor in the departments of social and economic studies and humanities at Imperial College.

HUMAN TOXICOLOGY
Published quarterly, this new journal features the following material:

- original papers of a high scientific standard on all aspects of human toxicology, embracing both animal research and studies with humans
- short communications
- invited comments on current matters of professional interest
- editorials on topical issues
- review papers
- book reviews

SUBSCRIPTION PRICE: 4 ISSUES PER YEAR, £50.00

BRITISH JOURNAL OF ANAESTHESIA
The British Journal of Anaesthesia has consistently been the leading independent contribution to anaesthesia enjoying international contributions and readership.

Published monthly the journal offers:

- Sections on Laboratory Investigation, clinical research, case reports and information on apparatus.
- A correspondence section in which views are exchanged through short communications and comments on matters of professional interest.
- Book reviews.
- Postgraduate Educational Issues, on both clinical and basic themes, produced twice a year - indispensable to established clinicians and trainees alike.

SUBSCRIPTION PRICE: 12 ISSUES PER YEAR £17.00

British Journal of Clinical Pharmacology
The British Journal of Clinical Pharmacology is the leading authoritative journal presenting the results of clinical pharmacological research. Published monthly on behalf of the British Pharmacological Society, the British Journal of Clinical Pharmacology contains original papers submitted from all parts of the world making it one of the most respected journals for all those professionally involved in the pharmaceutical sciences. It contains up-to-date papers of the highest quality on all aspects of drug action and is thus a vital source of information for physiologists, clinicians, immunologists, molecular biologists and biochemists as well as pharmacologists.

SUBSCRIPTION PRICE: 12 ISSUES PER YEAR £15.00

Sample copies available. All rates include postage.

SCIENTIFIC & MEDICAL DIVISION, MACMILLAN PRESS, HOUNDMILLS, BASKINGTOKE, HAMPSHIRE, ENGLAND, RG21 2XS

SCIENTIFIC & MEDICAL **M** MACMILLAN PRESS LTD

ELSEVIER JOURNALS IN SOCIOLOGY

THEORY AND SOCIETY
Renewal and critique in social theory
Editors: Paul J. Hirst, Anthony Giddens, Erving Goffman, Martin Jay, Jerome Karabel, Charles Lemert, Immanuel Wallerstein, Sharon Zukin
Contemporary society under the critical eye of outstanding thinkers: today's important issues from a historical, political, or sociological perspective
1983: Vol. 12 (6 issues)
US \$30.00 / Dfl. 75.00 for individuals

CONTEMPORARY CRISIS
Crime, law, social policy
Editors: William J. Chambliss, Lisa Reeve Stearns, Paul Stebbins
Controversial articles on criminology and current related issues, popular justice, the media and crime waves, the welfare state and crime, political action and criminal policy, women in the work force, and problems of development
1983: Vol. 7 (4 issues)
US \$32.00 / Dfl. 80.00 for individuals

DIAGNOSTIC ANTHROPOLOGY
Editor: Stanley Diamond
A leading independent international journal in the critical tradition, committed to the transformation of our society and the humane union of theory and practice
1983: Vol. 7 (4 issues)
US \$32.00 / Dfl. 80.00 for individuals

QUALITY AND QUANTITY
European-American Journal of Methodology
Editor: Vittorio Caporuscio
Systematically correlates disciplines as mathematics and statistics with those of the social sciences, particularly sociology, economics, and social psychology
1983: Vol. 17 (6 issues)
US \$49.00 / Dfl. 145.00

WRITE NOW FOR A FREE SAMPLE COPY

ELSEVIER SCIENTIFIC PUBLISHING COMPANY
P.O. Box 211, 1000 AE Amsterdam, The Netherlands

EDUCATION

HIGHER EDUCATION
The international journal of higher education and educational planning
Editors: Alec M. Ross, H. Altbach, L. Geyrhofer, G. L. Williams, E. Lerner
Well-established forum for the discussion of worldwide problems of higher education: authoritative overview articles by leading experts, and more detailed studies of particular issues
1983: Vol. 12 (6 issues)
US \$29.00 / Dfl. 77.00 for individuals

INSTRUCTIONAL SCIENCE
Editors: Paul Feltzer, Relethe Smith
Explores the theory and practice of the instructional process in depth, including learning methods, educational psychology, course design and presentation, and educational technology
1983: Vol. 12 (4 issues)
US \$34.00 / Dfl. 85.00 for individuals

POLITICS AND POLICY

EUROPEAN JOURNAL OF POLITICAL RESEARCH
Editors: Mogens N. Pedersen and Derek Urwin
Fosters communication and collaboration about ongoing research across linguistic and national boundaries, reports on recent research and summarizes important political data
1983: Vol. 11 (4 issues)
US \$32.00 / Dfl. 80.00 for individuals

POPULATION RESEARCH AND POLICY REVIEW
Editor: Larry D. Barnett
Provides a source for government officials to learn about the policy implications of recent research on the causes and consequences of changing population size and composition, and provides broad coverage of demographic research, particularly in developed countries
1983: Vol. 3 (3 issues)
US \$30.00 / Dfl. 77.00 for individuals

POLICY SCIENCES
An international journal devoted to the improvement of policy making
Editor: Peter DeLeon
Examines the normative aspects of the policy sciences, addresses concrete policy issues, challenges the theory and discusses controversial analyses as well as open to an exchange of views as well as in-depth presentations
1983: Vol. 16 (4 issues)
US \$32.00 / Dfl. 80.00 for individuals

INTERNATIONAL JOURNAL OF POLITICAL EDUCATION
Editor: William Langford
Publishes on socio-political theory and research, development of political competence, teaching curricula and programmes in schools, colleges and universities all over the world
1983: Vol. 6 (4 issues)
US \$32.00 / Dfl. 80.00 for individuals

Oxford Science and Medical Journals

Adverse Drug Reactions and Acute Poisoning Reviews
Editor: D. M. Davies
More and more attention is being devoted to the subjects of adverse drug reactions and acute poisoning, and their importance is reflected in the increasing numbers of case reports and articles being published in a wide range of journals throughout the world. *Adverse Drug Reactions* meets the need for a forum for critical and exhaustive reviews of current knowledge and development in these fields. Subscription (4 issues a year) £34 (UK £30; US \$69)

Brain
Editor: P. K. Thomas
Brain is the leading journal of neurology. It publishes original papers in clinical neurology and related disciplines, and in the basic neurological sciences where they are relevant to clinical problems. Founded in 1877, it has published many papers which have subsequently become classics in the field. Subscription (4 issues a year) £35 (UK £31; US \$73)

Cancer Surveys
Editor: L. M. Franks
The purpose of *Cancer Surveys* is to provide a comprehensive review of areas in oncology and related fields in which there is current scientific or clinical interest. Each issue of the journal is concerned with one selected topic and provides a definitive account of the present state of knowledge. Subscription (4 issues a year) £45 (UK £40; US \$95)

Forestry
Editor: D. C. Malcolm
Forestry publishes internationally refereed papers on all aspects of the physiology, ecology, and productivity of forest growth, its maintenance and estimation, the development of silvicultural and management techniques, and the impact of social and economic considerations on forest management and utilization. Subscription (2 issues a year) £26.50 (UK £23; US \$56)

International Journal of Epidemiology
Editor: Charles du Ve Florey
This journal is concerned with the epidemiology of both infectious and non-infectious diseases, with research into health services and medical care, and with new methods for the analysis of data used by those who practise social and preventive medicine. Subscription (4 issues a year) £41 (UK £38; US \$78)

Journal of Developmental Physiology
Editor: Colin T. Jones
The *Journal of Developmental Physiology* publishes papers describing the results of original research on aspects of the scientific study of pregnancy, the fetus, or the neonate of man or experimental animals. Subscription (6 issues a year) £50 (UK £42; US \$125)

For more information about Oxford Science and Medical Journals please write to Elizabeth Bone, Oxford University Press, Walton Street, Oxford.

Journal of Experimental Botany
Editor: W. W. Schwabe
This journal publishes papers on all aspects of experimental botany, including physiological, biochemical, and biophysical studies, as well as those relating to functional anatomy and ultrastructure, etc. Subscription (12 issues a year) £87 (UK £79; US \$185)

Journal of Petrology
Editors: K. G. Cox, B. W. Evans, D. H. Green, and W. Schreyer
This journal publishes papers on a wide range of topics, including the physics and chemistry of rocks, experimental petrology and mineralogy, rock-forming minerals and their paragenesis, the micro-structure of rocks, and isotope geochemistry and geochronology as applied to problems of petrogenesis. Subscription (4 issues a year) £42 (UK £37; US \$87)

Proceedings of the London Mathematical Society
Editor: D. J. Collins
The *Proceedings of the London Mathematical Society* publishes research papers in the fields of real and complex analysis, abstract and functional analysis, differential equations and related areas, topology, geometry, logic, probability and statistics, algebra, number theory, and combinatorial theory. Subscription (6 issues a year) £130 (UK £117; US \$272)

Quarterly Journal of Mathematics
Editors: R. G. Haydon and W. B. Stewart
This journal publishes original contributions to pure mathematics; and all the main branches of algebra, analysis, combinatorics, and topology have been represented in recent volumes. Subscription (4 issues a year) £36 (UK £31; US \$72)

Quarterly Journal of Mechanics and Applied Mathematics
Editors: A. H. England, L. M. Hocking, and R. Shail
This journal serves the interest of the wide range of mathematics and engineers by providing a medium for the publication of original papers in the general field of mechanics, and in particular theoretical mechanics. Subscription (4 issues a year) £39 (UK £34; US \$78)

Quarterly Journal of Medicine
Senior Editor: P. Hugh-Jones
Editor: J. S. Cameron
This is the major medical journal published in Great Britain. It covers the whole field of medicine but gives emphasis to internal medicine. Its aim is to report advances of importance and significance in both diagnosis and treatment. Subscription (4 issues a year) £39 (UK £34; US \$75)

Oxford University Press

CRITICAL QUARTERLY

Unique and indispensable journal particularly for sixth-formers and their teachers featuring important articles on set texts and authors, as well as new poems and lively essays on recent writing.

AFRICA

Published on behalf of the International African Institute, Africa is the premier journal devoted to the study of African societies and cultures. Whilst retaining its strong social anthropological focus, the journal is now equally concerned to encourage an interdisciplinary approach.

THE JOURNAL OF TRANSPORT HISTORY

The only academic journal devoted to transport history, JTH enjoys a world-wide circulation. It aims to foster the serious study of transport history, at all periods, in its own right and especially in its wider relationship with the economy and society.

RESEARCH IN EDUCATION

The journal has always focused on the sociology and psychology of education. Its aim now is also to promote education more strongly as a discipline in its own right; to encourage the publication of research that makes full use of existing knowledge and practice in education.

INTERNATIONAL JOURNAL OF ELECTRICAL ENGINEERING EDUCATION

IJEE acts as a forum for teachers in universities and technical colleges, bringing a fresh approach to new and traditional material. In addition to articles of a purely technical nature, IJEE covers trends in curriculum development throughout the world.

Further information and specimen copies available from the Journals Department at the address below

Manchester University Press Oxford Road Manchester M13 9PL



European Journal of Physics

A quarterly journal of the European Physical Society published by The Institute of Physics

European Journal of Physics was recently launched as a forum for the exchange of ideas and practical experience between scholars and teachers of physics in universities and other institutions of higher education. It aims to encourage reflection on the fundamentals of physics and its contiguous disciplines, particularly mathematics and astronomy, and to disseminate ideas for improving the quality of the teaching of these subjects. These objectives are achieved through a mix of refereed contributions which are explicitly educational, or reflective, or interdisciplinary in nature and are written for a non-specialist audience.

European Journal of Physics publishes articles on physics as it is taught in the lecture hall or laboratory and on neglected topics in physics teaching: articles on the thrust and structure of physics courses and on the university training of physics teachers; articles offering a new look at old physics or considering the cultural implications of physics.

Send now for a free inspection copy to:

The Institute of Physics Physics Trust Publications Room 187, Techno House, Redcliffe Way, Bristol BS1 6NX, England

BULLETIN OF THE BRITISH MUSEUM (NATURAL HISTORY)

Issued in five series, Zoology, Entomology, Botany, Geology and Historical. Parts issued at irregular intervals, each complete in itself, available separately and individually priced or on subscription.

Enquiries to Publications Sales, British Museum (Natural History), Cromwell Road, London SW7 5BD.

academic journals

ever becomes a reality it would most likely involve on-line assessment by referees and on-line editing. This kind of system will be workable only when a highly sophisticated worldwide telecommunication facility is established: a very distant prospect.

Nevertheless, the incursion of technological innovations into learned society journal publishing has already begun, and will doubtless continue: the focus of such innovations at present is the word processor. Although the potential of these machines is very great, it is not yet clear which of their many possible applications will result in maximum benefit. Furthermore, problems of compatibility (between word processors and a typesetter), although diminishing, are still with us. However, word processors do offer both authors and publisher a convenient means of redrafting and editing: indeed some publishers now accept authors' scripts on machine-readable disc or tape (converted into print-out if assessment by referees is needed).

In this and other ways, recent developments in electronics will affect production methods in journal publishing over the next few years. What is surprising (in view of the ideas current in the early 1970s) is that little immediate change appears to be envisaged to the end product, the conventional printed journal. Although experiments with machine-readable journals are still proceeding, it seems unlikely that their results will affect the shape of the primary research literature in the near future. This is in marked contrast to the effect of technological change in the abstracting services.

The persistence of the conventional journal can be attributed partly to inertia, given that the previous forecasts of economic collapse were unduly pessimistic. In fact, surprisingly few primary journals have been forced out of existence by the factors referred to earlier; it seems that the relative security of those publications higher up on libraries' lists of priorities was not properly appreciated.

The financial position of most learned society journals is indeed somewhat weaker today than 10 years ago, but the situation looks only a little more dangerous now than it did then: it may be that many learned journals can carry on, as before, for another 10 years; but the question as to how they should be replaced must be answered.

Of the two factors likely to bring about change, economic stringency still looks more potent than the need for a more logical or effective instrument for information transfer. Pressure on library budgets continues to increase, and library circulations are still showing a steady decline. One might expect conventional journals to continue up to the brink of economic viability, but at that point the cheapness and effectiveness of a dual journal system, based on the ideas behind the Journal of Chemical Research and its analogues should assert themselves. In time the development of machine-readable systems may reach the point where the archival version would not need formal publication: an on-line option could be offered as an alternative to a microform. However, the user's desire for a current awareness print-out paper component in the primary literature is deep-rooted and seems likely to persist. When I mentioned to an American colleague recently that I was writing this article, his response was, "Tell them I have to have something to read on the plane!". The synopsis journal could well prove to be the ideal way of satisfying this need.

Policy of going public

Looking back, it was the utmost temerity to attempt to launch any new journal at the beginning of the 1980s at a time of academic as well as economic recession, let alone one seeking to be both international and interdisciplinary. Yet as I prepare to send Volume 3, Issue 1 off to the printer, I realize that we have moved well beyond the planning and launch stage.

At the Centre for the Study of Public Policy, itself set up in the mid-1970s at the University of Strathclyde to promote interdisciplinary research which applied social science ideas to government problems, we identified what we felt was an important gap in the existing range of public policy journals. With the exception of two or three British journals which looked largely at British issues from a public administration or political science perspective, the existing public policy journals were largely outlets for American writers, who all too often failed to indicate whether their findings applied in practice only (or even at all) in the United States or provided more general insights into the problems of government. While we did not expect most articles in the new journal to be comparative, we did expect them to make clear their generalizability or the limitations of their findings.

Another feature of many existing journals which touched on policy-relevant themes was that all too often they consisted of academics in one discipline talking to other academics in that same discipline. All too rarely, because of reading habits or opaque jargon, were they read by academics in other disciplines, let alone by practitioners in government who actually have to deal with the problems about which academics purport to advise.

Moving from initial concept to the appearance of the first issue was a process which took nearly two years. The earliest decision which had to be made was how to publish the journal. Should we start off on a relatively low-key approach in a cheap format, perhaps published by the Centre itself, or should we aim for a properly printed journal distributed by a major publisher? We decided that if the journal was worth launching it was worth aiming at an international audience and using a publisher with an academic reputation and an international distribution network.

Fortunately we chose to approach the right publisher at the right time, since Cambridge University Press, with commendable baverly, was looking to expand its journal list at that time. In retrospect I am quite clear in my own mind that this was the best way to launch a new journal with our objectives. Because CLP handled the subscriptions and printing costs side, I was able to concentrate on building up the editorial side.

A journal of the kind we were aiming for clearly needed a powerful international editorial board, both to provide guidance and supervision to the editor, and to provide a clear signal of inter-disciplinary quality to potential authors and subscribers. Fortunately, we were able to find many academics and practitioners who shared our view of the aims of the new journal. As the chairman of the editorial board, Professor Richard Rose, is fond of putting it, we have an editorial board which stretches from "Berkeley to Berkeley". One consequence of being published by Cambridge University Press is that board members find themselves appointed by a body known as the "Synetics" of the Cambridge University Press.

As a founding editor, much of my time was taken up not so much in reading papers (though that is time-consuming enough) as in establishing systems for keeping referees (vital for ensuring that you don't "flog" an



out of paper if referees don't reply) and procedures for initiating referees' reports, making offers or rejections and dealing with proofs. As a novice editor much of my on-the-job training was through making mistakes, sometimes embarrassing ones. I learned about the traps which await the unwary editor: the difficulty of encouraging people to send in papers (particularly necessary for a new journal) without at the same time implying a commitment to publish in case the paper doesn't turn out to be suitable. An editor may also be given a paper by someone who asks whether it would "do" for the journal or not, without making it clear whether they are actually submitting it or not. Having been faced with a situation where I rejected a paper only to be told by the author that he hadn't intended to submit it in the first place, I am now tempted when offered papers in this manner to respond with a version of the classic gamesmanship gambit: "kindly say clearly please whether the ball is in or out".

An editor who hopes that referees will remove the burden of taking

Recent Journals from Frank Cass

ARMS CONTROL The Journal of Arms Control and Disarmament Editors: Ian Bellamy and C. D. Blacker. £33.00 Institutions £20.00 Individuals

THE JOURNAL OF STRATEGIC STUDIES Editors: Amos Perlmutter and John Gooch. £40.00 Institutions £24.00 Individuals

THE JOURNAL OF LEGAL HISTORY Editor: Albert Kiralfy. £33.00 Institutions £20.00 Individuals

MEDIA LAW AND PRACTICE Editor: David Goldberg. £33.00 Institutions £20.00 Individuals

IMMIGRANTS AND MINORITIES Editors: Colin Holmes and Kenneth Lunn. £30.00 Institutions £18.00 Individuals

PROSE STUDIES Editors: Philip Dodd and Ronald J. Cornhill. £25.00 Institutions £15.00 Individuals

Further details of these and other journals from: FRANK CASS & CO LTD Gainsborough House 11 Gainsborough Road London E11 1RS

academic journals

decisions will find himself forced to make judgments where three referees can variously say of the same paper: "not suitable for publication"; "potentially suitable for publication subject to major revisions"; "excellent, only minor revisions required". Faced with referees' recommendations which fall short of unanimity, one might ask whether it is worth operating such a system. Despite the time taken in dealing with referees' reports (to say nothing of the time which the referees themselves unselfishly spend), referees are valuable in providing advice on topics in which I have no expertise. The majority of papers appearing in the Journal of Public Policy have been usefully revised to take account of referees' comments.

Having set ourselves the ambitious target of being both international and interdisciplinary, have we succeeded? In the first nine issues there is a reasonable spread from a range of social science and management departments. Authors from political science and public administration departments are the largest single category, but account for under a third of authors. There is only a modest number of authors from "not-for-profit" institutions and the public sector, though a number of authors currently in academic departments have recently been employed in the public sector.

In terms of country of authorship, the Journalist of Public Policy at around 40 per cent American authors is neither overwhelmingly American like other public policy journals, nor, at just under 50 per cent British authors, overwhelmingly British. Despite the language problem there is clearly scope for the journal to expand its non-Anglo-American authorship.

Despite the fact that the journal is now established in terms of meeting these objectives, there will not be any respite, since we cannot simply wait for good articles to flood in. There was an initial surge after the publicity launching, then the submission rate had declined after the initial surge. The availability of the journal as a potential outlet had to continue to be brought to the attention of writers who may otherwise be inclined to think in terms of journals directed only at their own discipline.

The cutbacks in higher education have undoubtedly harmed subscriptions to the journal, particularly since many libraries which would previously automatically have subscribed to a Cambridge University Press journal are now reluctant to do so without another journal being cut. Potential individual subscribers may be reluctant to subscribe to a journal of which they have not seen a copy, not realizing that Cambridge University Press or myself would be happy

to send them a free inspection copy. Cambridge University Press have responded by not only holding the price steady for three years but offering a 3 1/2 per cent discount on the first three volumes to new subscribers.

Now that the Journal of Public Policy is under way, there is already a "where should we go from here" debate developing in the editorial board. In particular the discussion revolves around whether the journal should to a great extent attempt to appeal directly to those working within the public sector or whether it should expect to appeal largely to academics, who may in turn be able to interpret the policy significance of articles to policymakers.

When a colleague was recently appointed as editor of another journal he said that he would like to have a chat with me about what the job entailed. I told him, only half tongue-in-cheek, that if he had already accepted the post my main piece of advice would be to take late editing a journal can be a very fulfilling job, and being the founding editor of a new journal is particularly satisfying.

Brian W. Hogwood

The author is editor of the Journal of Public Policy published by the Cambridge University Press.

'Rithmetic of reading the writing

The realization that our school of education library took 630 periodicals, and that the cost next year would probably, for the first time, go through the £10,000 barrier, was quite a shock; and this even after a culling of lesser organs of the *Lower Journal of Bright Ideas Whilst Shaving* variety.

The cost of periodicals in education now varies considerably, from the many bulletins and research newsletters which are free up to the £160 plus for *Soviet Education*. Trying to trim the periodicals budget by, say, 10 per cent, is not easy, as those of poorer quality or holding less interest sometimes cost us £4 or under. Saving money by terminating a few of the more expensive on the other hand would either interrupt long runs or deprive us of unique sources of information.

I estimate that I personally read, consult, referee and write for no more than 50 of these journals, and even trying to count the rest is exhausting. The range of interests in education is so vast, however, that I still have to obtain certain articles through inter-library loan because we do not take the journal concerned. Indeed I became sick of the sight of the microfiche reader for the last book I wrote because so many of the references were in this category.

Given such vast array of outlets these ought to be difficult for academics to find a home for their own writing. With so much academic verbiage to produce, monthly or quarterly, there must be editors of some of these journals either writing the whole thing themselves under different pseudonyms, or desperately trying to shanghai contributions down at the local bus station. Yet I know from refereeing articles and talking to journal editors and publishers that although they are often desperately in quest of quality material as their deadline draws near, they have rejected numerous contributions for various reasons.

Since promotion and academic standing depend to a considerable extent on publishing records it is a pity that writing is such a hazardous hit-or-miss business. Presumably if a struggling potter makes quality pots the only thing he has to fear is the oven-mangling the odd one. The pitfalls in writing for education journals are more numerous.

The first problem is that of registration. A few years ago, for example, Professor Stephen Wiseman made the decision that *Educational Research* ought to be read by more teachers. This immediately changed the requirements: statistical and technical terms would have to be ex-



plained, more articles of interest to practising teachers would be needed. Anyone who continued to submit turgid pedantry would find his batting average going down.

Getting past referees is the next hazard. Since these are usually anonymous one never knows if articles containing "despite Fortescue's totally inadequate research design" phrases will actually be critiqued by Fortescue himself, who is presumably now less likely to warm to the rest of the article.

If the article is actually accepted problems are still not over. Proof-reading is the most desperately boring activity known to mankind, not even an excuse for a decent bit of narcissism, as the tendency to miss errors more easily in one's own prose than someone else's requires ferocious concentration. I once described the DES as a "secret palace". It came out in print as "secret police" so I left it intact, even though I spotted it at the proof-reading stage, on the grounds that it is occasionally important to capitalize on serendipity.

Once in print it is still not possible to sit back and enjoy the somewhat restricted fame accorded to academic journal contributors. The best part of debating issues with interested colleagues in the field. The worst is to be caught up in rancorous debate. The greatest rancour is sometimes generated by people who themselves have not put their heads over the battlements.

A young colleague who had written his first major article was once deeply upset to be savaged in a "what Blotgs fails to realize" review. It cheered him up to learn that his accuser never left the safety of his senior common room armchair. Henry Kissinger observed that critics never built cathedrals. To be criticized by someone with a pedigree is salutary

- Analysis
British Book News
British Journal of Educational Studies
Bulletin of Economic Research
Byzantine and Modern Greek Studies
Fiscal Studies
German Life and Letters
Journal of Business Finance and Accounting
Journal of Common Market Studies
Journal of Economic Affairs
Journal of Industrial Economics
Journal of Management Studies
Journal for the Theory of Social Behaviour
Metaphilosophy

Major Journals from Basil Blackwell Publisher

- Mind
Music Analysis
New Universities Quarterly
Oxford Bulletin of Economics and Statistics
Oxford Journal of Archaeology
Pastoral Care in Education
Philosophical Books
Philosophical Investigations
Philosophical Quarterly
Praxis International
R&D Management
Ratio
Social Policy and Administration
The World Economy

Write for further information on any of the journals to: Sue Dommett, Journals Department, Basil Blackwell Publisher, 108 Cowley Road, Oxford, OX4 1JF.

Basil Blackwell Publisher Oxford

EDUCATION AND TRAINING FOR EMPLOYMENT IN THE 1980's

On July 2 the Times Higher Education Supplement published a special six page feature on several facets of the New Training Initiative. Included were articles by Geoffrey Holland, the Director of the Manpower Services Commission, Mick Farley of NATFHE and Clare Short of Youthaid and others. Reprints of the feature are now available at a cost of 40p.

Please send your cheque/postal order (no cash please) made payable to Times Newspapers Ltd to:

Nigel Denison, The Times Supplements, Priory House, St Johns Lane, London EC1M 4BX.

Ted Wragg
The author is director of the Exeter University school of education.

BOOKS

The ideologist of American liberalism

by Alan Ryan

A Theory of Justice
by John Rawls
Oxford University Press, £4.50
ISBN 0 19 881301 5
Utilitarianism and Beyond
edited by Amartya Sen and
Bernard Williams
Cambridge University Press, £20.00
and £7.50
ISBN 0 521 24296 7 and 28771 5

It is just over ten years now since *A Theory of Justice* appeared. In that ten years it has dominated the intellectual lives of political philosophers and political theorists in the English-speaking world.

It is not just that the book created what everyone half-grudgingly, half-respectfully calls "the Rawls industry": it is more that Rawls successfully tied together the discussion of economic justice, political democracy, civil liberties and social cohesion that anyone writing about a vast range of topics - about almost any topic of importance in political theory - finds himself obliged to say why he does or does not work within the framework Rawls provided. The grip that Rawls's book exerts upon its critics as well as its defenders was well put by Robert Nozick in *Anarchy, State and Utopia*:

A Theory of Justice is a powerful, deep, subtle, wide-ranging, systematic work in political and moral philosophy which has not seen its like since the writings of John Stuart Mill. If then it is counted as an illuminating idea, integrated together into a lovely whole. Political philosophers must now either work within Rawls's theory or explain why not.

One might have expected philosophers to greet *A Theory of Justice* with something between enthusiasm and ecstasy. They had been waiting for it for a very long time; Rawls's first sketch of the theory appeared as an article on "Justice as Fairness" in the *Philosophical Review* in 1958, where the device of the "veil of ignorance" behind which we draw up the social contract first appears, and where Rawls first borrows from the theory of games the thought that the rules of justice are shaped by an attachment to a "minimax" strategy, ensuring that the worst outcome is as good as possible - or in social terms, arguing that distributive justice favours the society whose worst off member is best off. The remarkable thing about *A Theory of Justice*, however, was its appeal outside the confines of professional philosophy; seeing that it is a very long book, and written with concessions wherever to the reader who needs to be jollied along, its appeal to social scientists, literate politicians and plain readers is astonishing.

There are two obvious reasons for this, reasons which explain why *A Theory of Justice* has never had quite the same width of appeal in this country as in the United States. The first is that the book provides an ideology for American liberalism; an ideology of which American liberalism is badly in need. The problem faced by American liberals is simple enough - they wish to defend measures of economic redistribution, substantial welfare expenditure, government intervention to reduce discrimination against disadvantaged minorities, but they do not want the sort of strong state many conservatives want that is, they do not want the state to censor literature or the other arts, they do not want the state to interfere with the sexual tastes of the citizenry. They are therefore in a bind: to stand up for freedom in all costs in order to keep the government out of our libraries and our bedrooms seems to entail in consistency that we keep the government out of our buying and selling and hiring and firing; to let the gov-

ernment decide that some levels of poverty and ignorance are morally intolerable and can be remedied by government intervention in the marketplace seems to entail in consistency that governments have a perfect right to decide that our reading material or sexual tastes or political opinions are morally intolerable too.

The argument is an argument about the rights of governments and citizens; it is not a question of saying that the government has a right to censor our reading material but would be ill-advised to do so - Lord Devlin, who energetically defended the right of governments to legislate on sexual matters, was in fact convinced that legislation against private homosexual activity was misguided. This won't do for the liberal; he wants to say that governments have no right to censor, no right to dictate private conduct; and he wants to fight off the conservative who claims that governments have no right to tax their citizenry for welfare purposes. Rawls's theory provided just what was wanted. *A Theory of Justice* neatly separates out a group of political and civil liberties which are all but absolutely inviolable, placing them in a different category from the rules about such things as property rights which enable economic activity to proceed.

Because Rawls starts with the idea that in the absence of rules all skills and all natural resources form a sort of "pool" ready to be exploited by society, what he is enabled to argue is that prudent, rational persons who knew nothing of what the future would hold for them would agree to regulate the use of these resources in such a way that the worst off person under the chosen system did better than the worst off person under any other system. This does not, of course, instantaneously justify the welfare state as it actually exists in any particular country.

But what Rawls's argument does do is subvert any claim that our rights over our property or our income simply shut out the government's rights; for our rights in this area are only instrumental to the goal of making the worst off as well off as possible, and if the typical welfare state solution of a mixed economy, redistributive taxation and government provided services in kind achieves that goal, then the welfare state is liberal. Therefore Rawls's argument for economic intervention and moral non-intervention in perfect consistency. Indeed, he can argue for the rest of the liberal good causes too. For Rawls's argument for the supreme importance of the system of civil liberties which his account of justice supports also means that the liberal's enthusiasm for, say, government drives to register black voters in the deep South, or government provision to give impoverished defendants legal aid is provided with principled support.

A Theory of Justice thus provides the welfare state liberal with what he standardly requires - a doctrine which explains why those who receive government aid have a right to it, why governments have a right, and indeed a duty, to provide such services, and why this does not threaten civil liberties.

Reformist liberals are always with us. I hope so, but ten years ago *A Theory of Justice* could speak to a wider audience. This reason was provided by the Vietnam War. A very substantial part of *A Theory of Justice* tackles the duties of citizens to obey their governments; more to the point, it tackles the question of how we are to dissent from decisions we regard as morally unacceptable. I doubt whether *A Theory of Justice* made very much difference to anyone's thinking of dodging the draft and heading for Canada or Sweden, or whether it tempted to put a bomb under a computer or pour pig's blood into government files, or how we are to dissent from decisions we regard as morally unacceptable. But it articulated the worries of serious adults who were horrified at the prospect of their children either becoming casualties in a war they disapproved of or else becoming stigmatized as criminals.



John Rawls

Rawls's account of political obligation is quite complex, and its complexity was in its favour. For it made both the duty to obey the law and the question of what sort of dissent to engage in discussable questions with answers of a varying degree of stringency. Conscientious people are obliged to obey the laws of a just government, whose policies and actions promote justice; when governments which are generally just go off the rails, a citizen may think it right to engage in civil disobedience as a "plea for reconsideration". The thought here is that a government, even with majority backing, will not want to drag dissenters with it, and will therefore wonder whether its policy is right, after all. To break the law under these conditions is an act of citizenship, and is something we should all be willing to do when the case arises.

Governments which are not even "nearly just" have no moral claims on their subjects, and their subjects cannot engage in civil disobedience, since *ex hypothesi* their governments are not taking their moral qualms with that sort of seriousness. Under such conditions, we are thrown back on working out what's for the best - often, of course, we shall either have to go along with the demands of such a government or ought to anyway, since even unjust regimes perform many useful functions which it would be wrong to frustrate. But, under such regimes, we have no general obligation to obey the government to set against whatever other considerations move us. In the United States in 1971, the war itself and the underhand way it was conducted made it an open question whether this was a nearly just government temporarily off the rails, or whether it had ceased, perhaps temporarily, to be a sufficiently close approximation to a just regime to give it any moral claims over its citizenry. I do not think, better, in providing a framework for political anxiety than a resolution of it. But at a time of great bitterness and much mutual incomprehension, it was a noble effort at providing a moral framework and a political vocabulary in which to increase understanding and respect.

Still, that was in another country, and besides, the war is over. What has happened to *A Theory of Justice* since is that it has permeated all our arguments and organized all our discussions. The collection of essays in *Utilitarianism and Beyond* is a good example of this process in action. It is not that all the essays are directed at issues discussed by Rawls; as one would expect from the professional attachments of the editors, many of the essays are directed at issues in science, economics, and many are directed at the question of whether there can be such a thing as a moral

theory, whether rationality in ethics does or does not entail that there is some supreme good or other. But, not only is there an essay from Rawls himself, there is a sort of constant background rumble of "Rawlsian" problems.

In this volume both R. M. Hare and John Harsanyi argue that utilitarianism is uniquely favoured by considerations of rationality. Both of them do a good deal to fight off the sort of objections which Rawls and others have levelled against old-fashioned utilitarianism. The most striking of these objections is that utilitarianism has no place for the principle of respect for persons, that it treats individuals as interchangeable units, of interest only because they are what experience utility and they are the creatures who have to operate utility-producing institutions. Rawls, like other writers who owe a debt either to Kant or to the natural right tradition, wants to place at the heart of moral theory the principle that nobody is to be used as a means to another person's ends; Hare thinks that his variety of utilitarianism which requires us to "universalize" our moral maxims - that is, to assent to them on the supposition that we were on the receiving end of whatever action is at stake - effectively rules out policies which sacrifice people for the general welfare.

Harsanyi, too, defends rule utilitarianism rather than act utilitarianism for much the same reasons. Whether this means the case seems to me to be dubious. The distinction between rule and act-utilitarianism is much less clear than Harsanyi suggests, and if it were as clear as he suggests he would be exposed to aggressive act-utilitarians like J. J. C. Smart, who complain that an insistence on the inviolability of rules amounts to "rule-worship" and is thoroughly superstitious. The point of being a utilitarian is precisely not to be bound by rules. Hare's position is vulnerable in the same sort of way: he relies on the fact that we would not wish to be treated as a mere means to eliminate such treatment from consideration as a serious moral possibility; but the tough-minded utilitarian presumably says that of course no one is going to like being sacrificed for the greater good, but that that dislike counts only as a cost to offset against the good achieved, not as an absolute barrier to it.

One of the most interesting essays in the volume comes from T. M. Scanlon, whose essay on "Contractualism and Utilitarianism" more or less recapitulates - though very much more coherently - a number of ideas which lurk in Mill's *Utilitarianism*, and which led Mill to think, rashly, that utilitarianism understood as "the greatest happiness principle" could accommodate our anxieties about justice. Scanlon makes no such mistake. He begins from what makes utilitarianism plausible - the idea that "goodness", "obligatoriness" and other moral properties are suspect as properties of things or actions, whereas the connexion between an action being in our interest and it being the thing to do is not; if nobody is "initially" more "valuable" than anyone else, and what matters to everyone is how far their well-being is promoted, it looks as if the only possible moral goal is maximizing the sum of individual well-being. Exactly what sort of utilitarianism this leads to is obscure, but it seems that maximizing utility is just what morality is about. Now Scanlon's aim is to operate with much the same starting thought as utilitarianism, but to argue for something other than maximizing utility. Essentially, what he argues is that what morality is about is finding rules which no one could reasonably reject as the basis of an informed, unforced general agreement. Such rules are likely to have a strong utilitarian content, but they are also unlikely to aim at the maximization of utility or anything else. Rules which imposed very heavy sacrifices on some people for the sake of others would be unlikely to

commend themselves as the basis for agreement, partly for reasons which Rawls concentrated on in *A Theory of Justice* - people would know that their commitment to such rules would waver when they were forced to sacrifice themselves - but partly for more direct reasons. If I was asked to make a large sacrifice to spread some benefit around a large number of people, each of whom hardly noticed the benefit received, I would very likely reply that I didn't see why I should do so, seeing that I wasn't inflicting a large cost on anyone by my refusal. It is precisely where my refusal to sacrifice myself means that some single other person is going to suffer as great or greater a loss that my reluctance would be complained of - then I should be saying in effect that rather than I should carry the burden.

What Scanlon and Rawls have in common is a strong sense that acceptable moral rules are determined in part by what morality is, and that morality is essentially social and public as well as rational. What utilitarianism does is generalize the rule for rational decision-making which a single individual would use. But if it is somehow essential to morality that it is the basis of a life led by separate but cooperating individuals, the fact of its being agreed among many individuals rather than legislated by one ought to make a difference to what we think are acceptable moral principles.

The other contentious area in moral theory reflected here again bears, though less directly, on Rawls's work. Some writers argue that morality is essentially plural rather than single, that moralities spring up in different societies, enable people to make different, perhaps equally adequate, senses of their existences, and cannot be ranked on any scale of more and less enlightened, more and less valid. Others have argued that morality isn't like aesthetics but like physics; one view is right and the rest are more or less forgivable forms of error. Of course, five minutes' thought blurs these sharp oppositions. Here Charles Taylor and Stuart Hampshire, both do elegant work in achieving that blurring before recapturing some sharpness in appropriate places.

Taylor simply lays out the actual variety of goods of character we admit and outcomes we approve, before suggesting that no reductive theory purporting to unify all these judgments looks remotely plausible. Hampshire, on the other hand, divides moral goods into two sorts, those about which calculation of abstract principles is in place and those about which it is not. The demands of justice, for example, relate to universal human needs; and one would expect that the more people agreed over them, the greater their agreement would be. Other demands - how to honour the dead, how to treat one's parents and children, within what framework to conduct our sexual transactions - do not promote justice or the general welfare, and however much argument we engaged in we should not persuade members of radically different societies that their conceptions of honour, sexual virtue, respect, or whatever were to be given up in favour of some stripped-down alternative.

Both Taylor and Hampshire turn their backs on one Enlightenment ambition - that of conducting all of one's life by the light of Nature and Reason alone. But although *A Theory of Justice* is a very Enlightenment piece of work, squarely in the tradition of Kant, it ought to be emphasized that these remarks are in no way a criticism of Rawls. He, after all, thinks that that impressive work as only one among other possible theories of justice, and justice as only one among the many virtues a society ought to exhibit.

Alan Ryan is a fellow of New College, Oxford.

BOOKS

UNIVERSITY PRESS

Past landscapes

Climatic Geomorphology
by Julius Bédél
Princeton University Press.
£35.30 and £13.10
ISBN 0 691 08294 4 and 08295 2

Over the past two or three decades, at least in the eyes of the British and the Americans, Anglo-American geomorphology has been regarded as vibrant, progressive and successful. To be sure, following the lead set by such pioneers as R. E. Horton and A. N. Strahler, Anglo-American geomorphology has developed some strong points of emphasis - morphometry, process measurement, systems thinking - that have set it apart from previous work and which have been highly beneficial. These have also served to differentiate it from much of the work that has been done on the Continent.

The accent has tended to be on studies which have a short time-scale and a limited spatial-scale. To many a 0.19km² catchment on the slopes of the Mendips, or of solute movement on a peat bog in the Pennines, have seemed to be what geomorphological research is all about. Although the significance of plate tectonic theory and the recent development in interpreting past environments from ocean cores may trickle down slowly and broaden horizons (both spatial and temporal), many Anglo-American geomorphologists regard phenomena like erosion surfaces and the happenings of the pre-Pleistocene period as being quaintly anachronistic and largely irrelevant as a contribution to understanding how landscapes function. There has also been a tendency to concentrate on what is regarded as the "norm" - slope and river processes in humid, temperate environments.

While all this has been going on, there have been geomorphologists in some European countries who have been taking a very different view of geomorphology, and the English translation of Julius Bédél's book makes their ideas available in a full and cogent form to a previously uninitiated audience. Conceptually this book is very different from modern Anglo-American work for it is concerned essentially with the impact of past climatic conditions on landscapes.

Bédél believes that most landscapes bear the imprint of various "relief generations" associated with past geomorphological processes. He proposes that the potency of geomorphological processes is very firmly controlled by climate, and that there are two zones - the "polar zone of excessive valley cutting", and the "zone of excessive planation in the seasonal tropics" - where relief-forming mechanisms are most effective. He also proposes that in the humid tropics processes are very different from those in other zones, in that it is the flattest portions of the terrain which experience the greatest erosion. The planation processes which concentrate low relief surfaces. Outside the tropics, by contrast, it is on steep slopes that most wasting processes are most active.

Bédél also believes that many areas which currently experience non-tropical conditions were subjected to tropical planation in the pre-Pleistocene, and that extensive tropical etchplains have remained with minimal alteration in all climatic zones from the Equator to the Pole. One consequence of this thinking is that Bédél proposes that many of the extensive plains of the world's subtropical deserts are not the product of present processes of pedimentation as an arid zone process is largely rejected except along the mountain slopes of winter-cold regions.

He concludes with a discussion of the work of geomorphologists who attempt to measure present-day pro-

cesses or use quantitative methods. He largely rejects their approach, arguing that "quantitative methods, based on actual or theoretical breakdown of the very complex processes of relief development, may help clarify specific details of the processes involved, but on their own they rarely contribute much to the overall understanding of the entire relief." He also believes that the measurement of process leads to a concentration on "the normal working of present processes. Instead of to the minor catastrophes which are often primarily responsible for relief development." Finally he rejects the study of modern processes on the grounds that "all present processes in all climatic zones of the world act upon a stage set by ancient processes."

Given this approach, it is perhaps not surprising that this book contains essentially no formulae, no morphometry, no measured rates. Its French Jews suffered from prejudice, the real significance of French antisemitism lies elsewhere. It did not have, and was not intended to have, major practical effects on the Jewish community. Their verbal violence and extraordinary intensity, as is shown by quotations from Drumont, Rochefort and the other antisemitic writers, (and by an analysis of that amazing document revealing the passions of the grassroots, the annotated list of subscribers to the *Hebry Fund*), but, as Dr Wilson demonstrates, these outpourings were ritualistic. "There is a parallel here with the violent revolutionary rhetoric, calling for the destruction of the bourgeois world, which contemporary socialists continued to employ, while pursuing reformist policies in practice."

Although antisemitism as a system of ideas always contained a potential justification for genocide, the transformation from theory to action was out of the question in France in the 1890s.

Antisemitism was one aspect of that late-nineteenth century elaboration of Fascist-type ideology studied by Z. Steinhilber in *La Droite Révolutionnaire: les origines françaises du fascisme* (1978). The ideology was developed first in France, although the horrifying translation of ideas into action took place elsewhere. It would seem as though France were innoculated by the transition from traditional to modern society, and those resulting from military defeat and political decline, were not insuperable. The rehabilitation of Dreyfus, and the successful defence of the Republic against the antisemitic and nationalist leagues show that France was able to develop the necessary antibodies.

This comprehensive study elaborates the insight of Hannah Arendt who began *The Origins of Totalitarianism* with a few pages on the Dreyfus affair. Dr Wilson also sees the significance of these events in their being one of the first examples of irrational democratic politics provoked by the crisis of modernization. This crisis was shared by all modernizing, industrializing societies. Nor was it simply, or mainly, an economic crisis. France in the late nineteenth century was only industrializing slowly, but the religious, intellectual and social strains of modernization were strongly felt. "The process of Jewish assimilation could be seen as a paradigm of a general breakdown of traditional social relationships." But antisemitism emerged from, and was throughout closely associated with, integral Catholicism.

The author draws on the different disciplines of social anthropology, psychology and literary studies with intelligence and tact, without falling victim to either jargon or over-scholarization. By combining such perspectives with the traditional documentary sources of the historian, he has produced an authoritative picture of the rise and decline of organized antisemitism in France between 1880 and 1914. It is a convincing, achievement, presenting an impressive amount of documentation and analysis with great literary skill.

D. R. Watson
D. R. Watson is senior lecturer in history at the University of Dundee.

Although there were also antisemitic riots in France, and certainly

methodology will thus make many shudder, while the nature of some of its tenets will cause puzzlement to a British audience. However, as it is the product of a long and distinguished career, it is full of the most thought-provoking and interesting discussions of the development of a host of different landforms over wide areas and over wide time-scales. This translation, which is handsomely produced and carefully executed (with the exception of some of the references), will be a fundamental resource for understanding a major approach to geomorphology - an approach which because it is different from that which we are used to is not thereby rendered invalid.

Andrew Goudie
Andrew Goudie is lecturer in geography at the University of Oxford.

Proto-fascism

Ideology and Experience: antisemitism in France at the time of the Dreyfus Affair
by Stephen Wilson
Associated University Presses, £30.00
ISBN 0 8386 3037 5

Nineteenth-century France had a relatively small Jewish community which did not suffer from discrimination on the scale of the Jews of central and eastern Europe, or of those in France during the Second World War. Yet between 1882 and 1914 antisemitism was prominent in both the intellectual and the political life of France. It is this somewhat paradoxical situation that Dr Wilson has described and analysed in this fascinating study.

He begins by distinguishing between traditional antisemitism, "rooted in the mores of the community", endemic in areas with large Jewish populations, and antisemitism as a modern political ideology, developed by "a group of intellectuals who derive their livelihood from the creation of anti-Jewish myths". Antisemitism of this second kind originated in the writings of mid-nineteenth-century French socialists, Fourier, Toussend and Proudhon. It was from a related intellectual milieu that the Protocols of the Elders of Zion were derived. Under the impact of the triple alliance developed in the generation of antisemitism developed into a serious political movement. These crises were the shock of defeat and revolution in 1870-71, the economic crisis of the great depression between 1879 and 1893, and the assault on the traditional values of Catholic conservative France embodied in the anticlerical campaign of the 1880s.

Two accidental events heightened the drama and lent colour to the antisemitic myth of a Jewish conspiracy. The first was the failure in 1882 of a campaign for his rehabilitation brought about by the Catholic-run bank, speculative Catholicism of its Jewish rivals, and the second was Dreyfus's condemnation on a charge of spying in 1894. The five-year campaign for his rehabilitation brought antisemitism to the centre of the political stage.

The Dreyfus affair as such plays only a small part in this study, with good reason. Its details have been so much investigated that there could be little new to say. But its impact on public opinion is here presented more thoroughly than before, on the basis of prefatorial reports and election results. This shows the lack of correspondence between large Jewish France with relatively few Jews, and the large old established Jewish community, did the new wave of antisemitism have much in common with the traditional antisemitism of the backward areas of eastern Europe. But in metropolitan France Dr Wilson demonstrates that antisemitism had little to do with tensions resulting from the actual process of Jews.

Although there were also antisemitic riots in France, and certainly

RECENT AND FORTHCOMING TITLES FROM

CCJ

UNIVERSITY OF CALIFORNIA PRESS

RISK AND CULTURE AN ESSAY ON THE SELECTION OF TECHNOLOGICAL AND ENVIRONMENTAL DANGERS

Mary Douglas and Aaron Wildavsky

In this controversial essay, Mary Douglas, a social anthropologist, and Aaron Wildavsky, a political scientist, explain why many Americans have come to see technology as a threat; why, out of all the possible areas of concern, fears for the environment are uppermost in many minds.

520 04491 6 £11.25

TOWARDS A BETTER LIFE

A NOVEL

Kenneth Burke

Winner of the National Medal for Literature 1980
'Beautifully written . . . A refusal to abandon the imagination in an abandoned time.' TLS

520 04638 2 £5.75 paper Published 28 October

CORNELL UNIVERSITY PRESS

A new volume in THE CORNELL WORDSWORTH series

THE BORDERERS

William Wordsworth

Edited by Robert Osborne

This edition provides the reader with access to every stage in the textual history of *The Borderers*, with transcriptions from the Rough Notebook, associated poems, and Wordsworth's own notes. The early version is presented here in full for the first time, along with the revised version the poet published in 1842.

8014 1283 8 £65.00. Published 28 October

JOHNS HOPKINS UNIVERSITY PRESS

MARXISM AND DECONSTRUCTION A CRITICAL ARTICULATION

Michael Ryan

'Ryan's explanations are excellent . . . and his attempts to combine Marxism with deconstruction lead to revealing readings of Marx . . . A powerful, provocative book.'

Jonathan Culler

8018 2752 3 £34.00

UNIVERSITY PRESS OF NEW ENGLAND

RACIAL MYTH IN ENGLISH HISTORY TROJANS, TEUTONS, AND ANGLO-SAXONS.

Hugh A. MacDougall

This wide-ranging survey is a study of two principal myths which over the course of centuries have successfully contributed to the formation of English national identity. MacDougall synthesizes the theories of writers as varied as Tacitus and Montesquieu, Charles Darwin and Max Muller.

87453 228 X £9.50

These and many more books from the above presses can be examined at the exhibition of American University Presses at Heffers Bookshop, Cambridge (15-20 October).

If you would like further information about forthcoming titles please write for our new Autumn catalogue, which also includes books from the University Presses of Toronto and McGill-Queen's, and the National Academy Press.

CCJ Limited

37 Dover Street, London W1X 4HQ

BOOKS

UNIVERSITY
PRESSESEnigmatic
reformerAlexander McDonald: leader of the
miners
by Gordon M. Wilson
Aberdeen University Press, £14.00
ISBN 0 08 028455 8

Alexander McDonald has always been something of an enigma. From humble Scots origin he became the most powerful trade unionist of his day. Yet his own power lies in his native Lanarkshire was tenuous. He was mistrusted, even reviled, by many local trade union leaders who found him arrogant and devious.

Despite founding the Scottish Miners' Union and serving as its general secretary, he gained more acclaim in England. It was largely English support that made him first president of the Miners' National Association in 1863 and kept him in that position. (Only four Scottish miners were among the official nominees who followed his coffin in 1861, compared with twenty-six mining representatives from England.) When he entered Parliament in 1874 it was for an English constituency (Stafford) which prior to his election campaign he had seen only from the train and for a party (the Liberals) with whose economic philosophy he had often taken issue.

There was, as Dr Wilson shows, much in McDonald's life to admire. He began mine work at the age of nine, managed, by incredible exertions, to study Latin and Greek in the evenings and to save enough to enter Glasgow University in 1846 at the age of twenty-five. After a period as a schoolmaster in Airdrie he surrendered his post to devote his life to trade union organization in mining reform. For almost twenty years he lodged in a three-room house in the mining village of Holytown, Lanarkshire, from where he administered the affairs of British miners, visited the various coalfields and sallied forth to London and even the USA.

McDonald fought hard and not unsuccessfully against truck, unfair contracts and the scandalous short

weighing of miners' output. He was a tireless advocate of higher safety standards, a more adequate inspection of mines and employers' liability. He gave expert evidence before two royal commissions and three select committees. One way or another, he had a hand in most of the mining and trade union legislation of the 1840s and 1870s. On the union front he kept the beacon light of unity burning and, though to his critics an incorrigible moderate, did at least favour selective strike action and limitation of personal output to increase miners' bargaining power. In Parliament he was, despite ill health, a frequent speaker on social and mining issues.

Yet McDonald's life also harboured inconsistencies sharp enough to cause accusations of duplicity or improbity. It is precisely for the discussion of the darker aspects of his career that this new study will be chiefly welcomed. From his twenties McDonald speculated financially with some success. While running union affairs he was also amassing a modest fortune, much of it from inconspicuous investment in mining companies. He was able in 1874 to purchase a substantial mansion near Hamilton and to employ half a dozen servants. The springs of his moderation were thus necessarily suspect: as a local activist declared in 1877, "ever since Alexander McDonald became a coal-master his advice [to miners] has been 'sublim'". Recent labour historians have either echoed these suspicions or indicted him for a signal failure to harness the militant zeal of the miners and for asserting the ideals of anarchistic "independent collier" societies or of inappropriate craft unionism.

Dr Wilson is the first scholar to examine the whole course and context of McDonald's life. The verdict which emerges is both kinder and less simplistic than many previous reactions. McDonald is acquitted of having become a class traitor. It is urged, very plausibly, that the paradoxes stemmed from his profound complexity of character as well as from the contradictions attendant on "a life which encompassed hardship, and prosperity, adulation and vilification, honours, successes and bitter disappointments".

Yet some at least of the enigma persists. Unfortunately, little survives of McDonald's private papers and letters: certainly not enough to reveal his motives, temptations, or inner struggles. Dr Wilson has made excellent use of what records remain and has speculated with imagination and care where the written word ceases to run. Inevitably the picture

is sometimes indistinct, mainly in the earlier chapters, but this is no fault of the author. At least the record of McDonald's achievements is clear. There is still room for some division of opinion on the man and his failings.

Baron F. Duckham

Baron F. Duckham is professor of
history at Saint David's University
College, Lampeter.Periodicals
of the
periodThe Victorian Periodical Press:
samplings and soundings
edited by Joanne Shattock and
Michael Wolff
Leicester University Press and
University of Toronto Press, £28.00
ISBN 0 7185 1190 5 and 0 8020
2463 7

In the opening essay in this collection, Walter E. Houghton quotes Salisbury, who thought that nothing was so "distinctive and characteristic" in the literary history of the nineteenth century as "the development in it of periodical literature."

Histories of individual periodicals have been written and some pioneering articles by Denis Thompson and R. G. Cox appeared in *Scrutiny* in the 1930s. Cox also contributed a compact survey to the Pelican *Guide to English Literature*. But a serious awareness of the potential value of the periodicals has become widespread only comparatively recently. The amount of available material is daunting, as Houghton indicates by noting that over 25,000 journals were published in Victorian times, besides "several hundred reviews, magazines, and weeklies that could claim to be 'literature'."

Joanne Shattock and Michael Wolff offer 14 "samplings and soundings", divided into three groups: the critic as journalist, management and money, and the new readership. It would have been more orderly to look first at some of the financial and editorial problems and then to consider questions of content and readership. Still, here we have a collection of essays that are all examples of impressive research, although inevitably they vary in interest and

readability. In his introductory pages to his consideration of the *Servant's Magazine* and the *London Journal*, Louis James emphasizes the importance of format and context as indications of the cultural outlook of the periodical. We have long been accustomed to bear in mind the effects of serialization when we read Victorian novels and now this book supplies evidence how publication in periodical form influenced some of the seminal non-fiction of the time. Brian Maidment examines (rather verbosely) the ways in which Ruskin constructively exploited serialization, articles and letters to the press in order to communicate and become directly involved with his readers. Nearly all of Ruskin's work, Maidment argues, "is occasional, written for the specific needs of a specific readership on a specific occasion." Houghton goes so far as to say that "scores of writers shaped their whole work to periodical publication," and he cites De Quincey, Pater and Arnold. Although John Stuart Mill did not give the same priority to journalism, his radical writings in the *Examiner*, mainly on post-1830 France, are discussed by Anne P. Robson and John M. Robson.

The editors rightly point out that the texture of Victorian life can be felt and seen in studying the press and that "we cannot understand Victorian Britain without understanding the ordinary." Consequently, obscure and all-but-forgotten periodicals are the subject of extensive attention. The famous reviews and magazines do not figure much in these pages, although Sheila Rosenberg charts the difficulties John Chapman faced in running the *Westminster Review*. Instead, we have detailed studies of nineteenth-century newspapers in Sunderland (by Maurice Milne), the relationship of the Society for the Diffusion of Useful Knowledge with the development of a mass reading market (by Scott Bennett), an attempt by William Owen to establish a labour newspaper system (by Aled Jones), and the scandalous *London Weekly*, *The Town* (by Donald J. Gray). Louis James has some interesting pages on the *Servant's Journal* and Michael Wolff gives a full account of the *British Controversialist*, which catered for young lower-class men eager for self-improvement. Besides sharpening our awareness of mutual relationships between press and non-press reading public, the book deals with religious and political pressure groups. Brian Harrison considers various reforming movements and Joanne Shattock focuses on the *North British Review*, founded in support of the Free Church of Scotland. Some of the research involved in these areas may seem unduly dogged and earnest - "there were at least 14 positive factors likely to affect survival" of Victorian newspapers, Milne suggests, for example. But it's necessary spadework, preparing the ground for that closer understanding of Victorian society that the periodicals convey.

"Victorian" is loosely used chronologically, as the editors admit, although most of the contributors keep within clearly defined time limits. John Woolford, for instance, uses the receptions of *Men and Women* and *Dramatis Personae* to illustrate a shift between 1855 and 1864 from self-display to sobriety in the criticism of poetry. An exception is Helene E. Roberts, who ranges over fifty years in her essay on art exhibitions, which I found disconcerting, despite the interest of her material.

The book's modest sub-title disclaimer of comprehensiveness of approach and content, which is obviously impossible with this vast subject. But there's a good deal to be learnt from this collection, particularly about readership, the use of literary and social critics made of periodicals and the ideological and commercial pressures editors and proprietors had to contend with. Let us echo the editors' hope that further research may ensue and that a second volume dealing with other aspects of Victorian periodicals may eventually appear.

Donald Hawes

Donald Hawes is head of the department of Language and Literature at the Polytechnic of North London.

Peter Newman Brooks

Peter Newman Brooks is lecturer in ecclesiastical history in the University of Cambridge.

Among
the electParliaments and Predestination: grace in
English Protestant theology 1525-
1695by Dewey D. Wallace, Jr
University of North Carolina Press,
£21.00
ISBN 0 8078 1499 7

At a time when many are questioning the relevance of doctrinal controversies only a singular scholar could contemplate another work on Puritanism, particularly a monograph on the vexed issue of predestination. In a review of Patrick Collinson's *Elizabethan Puritan Movement* (1967), G. R. Elton, with his ever erring instinct for three-dimensional balance in the writing of history, complained that even so definitive a work lacked much theological perception. It is expressly to afford such insights that Dewey D. Wallace, Jr has made this careful analysis of the "deeply theological" phenomenon that conditioned English religion in the sixteenth and seventeenth centuries.

In five well-written and carefully documented chapters, the author outlines the reception and development of a doctrine of grace by England's first Protestants. It was a pattern of theology, originating in the Swiss Reformation, split out a whole order of salvation in heady concepts of predestination, vocation, justification, sanctification and glorification. In short, from early days, orthodox Puritans held great store by predestination as a doctrine safeguarding God's free gift of grace against those "Free-willers" whose well-ignited Pelagian outlook detracted from the glory and grace of God in man's redemption to re-open the door to the dreaded heresy of "works righteousness" and human merit. Yet it was once a test of orthodoxy in the household of faith, over the years rigid, neo-scholastic notions of predestination became increasingly untenable until they were viewed by many seventeenth-century writers as very much an alien presence in a different and "enlightened" age.

Professor Wallace does much to underwrite the Olympian judgment of Dr Nicholas Tyacke that "Calvinist predestinarian teaching was... a crucial common assumption, shared by the majority of the hierarchy and virtually all its non-conformist opponents, during the Elizabethan and Jacobean periods." But this is not to deny the originality of his own contribution, and there is much in these pages to sustain the pastoral understanding of Reformation. For if Puritan doctrines of predestination unquestionably probed theological depths in an *ordo salutis*, popular preaching applied such notions to inculcate the piety and comfort of assurance in pastoral instruction. Richard Rogers, for example, was much concerned that "men may know that they are the elect of God", and in *The Christian Warfare* (1604), John Downe held that the ultimate state of glorification provided believers with great hope and such assurance of God's work in their souls that, for him, eschatology itself constituted an element in the doctrine of grace.

Professor Wallace also recognizes the seventeenth-century revival of humanism and Lutheranism as significant factors discrediting Calvinist orthodoxy; and he supports Tyacke's view that the advent of Arminianism drove a wedge between establishment and dissenting divines of Puritan persuasion that was to have dire consequences for the religious divisions of the nation in the English Civil War. But Professor Wallace is more concerned with the threat such radical controversies posed for the Church. For as Francis Rous warned the Commons in 1629, "you shall see an Arminian repeating out his hand to a Papist, a Papist to a Jesuit, a Jesuit gives one hand to the Pope and the other to the King of Spain."

A further feature of "disarticulation" is that the preservation of a semi-proletarianized workforce allows capitalists to raise productivity without raising wages. In rich countries they need to raise wages to keep a market for their goods - hence the long-term tendency to a final crisis of capitalism, postponed

BOOKS

UNIVERSITY
PRESSESPeripheral
peasantsThe Agrarian Question and
Reformism in Latin America
by Alain de Janvry
Johns Hopkins University Press,
£19.25 and £6.25

ISBN 0 8018 2531 8 and 2532 6

For a long time it has been believed that the development of capitalism entails the disappearance of the peasantry; the process might be relatively short, as in England, or more drawn out, as in France, but in the end the peasants will disappear. Recent work on some poor and middle-income countries, where capitalism is developing fast, especially in Latin America has apparently cast doubt on this time-honoured view, by revealing ever-increasing numbers of smallholding agricultural production units.

There are several explanations for these findings. One is to dismiss them as mere kinks in a long-term statistical trend which will remain faithful to the standard view. Another is to show that the proliferation of independent smallholders is an illusion: they are "really" earning their living by wage employment (if they are lucky) but hang on to a piece of land at any cost, even if they have neither the time nor the resources to cultivate it profitably. A third account is not incompatible with the second: this states that such a proliferation of apparently non-capitalist enterprises is actually conducive, even "functional", to capitalist development; these are household enterprises which produce their own food, but since their members often work for a wage outside the household, the wage capitalists pay if they are to keep the workers at the minimum level of well-being is less than it would be if they were landless wage workers. This argument assumes that the labour force in capitalist enterprises is largely seasonal and has absolutely no bargaining power to raise wages above subsistence levels and that there are few skilled workers. De Janvry adopts all three arguments. Ambiguities which then arise are attributed to the contradictory nature of capitalist development which, while requiring non-capitalist enterprises, also destroys them.

The book begins with the presumption that capitalism in peripheral countries is not the same as in industrialized ones. In industrialized countries capital accumulation is "sectorally articulated", that is, it is moved by an internal dynamic in the periphery, by contrast, accumulation of capital is "sectorally and socially disarticulated". This central concept is derived from both (non-Marxist) radical and neo-classical economics: from the radicals he takes the pessimistic view that income inequality tends to be accentuated in the process of capitalist development on the periphery. From the neo-classicals he takes the view that import substitution (that is, import controls) creates privileged monopolies for protected indigenous capitalists and discourages them from producing capital goods (the motor of development). This occurs because import controls support a strong currency and it is easier to produce, say, handbags than machine tools. The result, says de Janvry, is that the economy is either producing expensive consumer goods for the rich, or exports to pay for the imported capital and intermediate goods required to manufacture luxury goods.

A further feature of "disarticulation" is that the preservation of a semi-proletarianized workforce allows capitalists to raise productivity without raising wages. In rich countries they need to raise wages to keep a market for their goods - hence the long-term tendency to a final crisis of capitalism, postponed

only by seeking external solutions by creating a relation of dominance with the periphery. The picture which emerges is one of a world economy in which, because of capitalist crises in rich countries, multinational corporations invest in the periphery; the state in peripheral countries is so organized that it sustains relatively high rates of surplus extraction and social inequality, but it can only sustain this if it continues along the path of "sectoral disarticulation". Thus the rich and poor countries are inextricably bound up in a system which constantly finds new solutions to capitalist crisis. Neither set of countries could sustain capitalism on its own; indeed, capitalism is inherently a world system in which survival depends on development, and in which development requires a centre and a periphery.

What has all this got to do with the agrarian question of the book's title? The answer lies in the masses of semi-proletarians who keep profits high in the periphery, and in government food policies. De Janvry takes on board the standard neo-classical complaint against "cheap food" policies in poor and middle-income countries: they discriminate against rural producers, and especially against the poor among them. It works both ways: if the state changes policy as many have done since 1970, and adopts more free trade policies, imports from rich countries push prices down and marginalize domestic food producers. If the state does not change, then its own protective and populist policies maintain low food prices. Agricultural capitalists escape the trap by producing for export and obtaining cheap credit, so the poorer producers suffer most. Unfortunately, de Janvry's own claim that peasants depend increasingly on wages to supplement their own production undermines his thesis, since under such conditions they will presumably welcome cheap food.

De Janvry is surely right to insist on the complexity of the world's economic problems, and to try to show how the problem of poverty in poor countries is related not to the greed or uncharitable nature of people in rich countries, but rather to the structure of the relationship between rich and poor people within and between rich and poor countries, and between national and multinational capitalist corporations and the state in both. This much is laudable, the plodding and polemical style and the complacent presentation of data are less so. De Janvry often uses polemical sources for primary data; he presents continent-wide and national level data where regional variations render them misleading; he presents tables on "rural social classes" and figures on "rates of surplus extraction" without an account of the method used in their construction.

The most serious objection is raised by de Janvry's steadfast refusal to incorporate into his analysis the possibility that the "centre" is moving southwards, as several middle-income countries develop an internal dynamic and defy categorization as "sectorally and socially disarticulated". This is particularly the case in Brazil and Mexico, and has never been otherwise in Argentina. De Janvry does at one point recognize that there is "selective development" in centre economies and a "rapid acceleration of accumulation in a majority of countries in the periphery", but he does not want to admit the possibility that this undermines much of his analysis. Rather he takes refuge in terminological obfuscation: "new forms of contractual" do arise, but "fundamental structural characteristics remain unchanged". What, one might ask, is changed? What, one the forms of more fundamental theory?

This book's greatest difficulty may also be its greatest originality: it is that it makes a contribution to a Marxist debate on underdevelopment, its character and causes, with several neo-classical arguments; it is a shame that, by never admitting its indebtedness to neo-classical analysis, the analysis is disconcerting as well as illuminating.

David Lehmann

David Lehmann is assistant director of
development studies at the University of
Cambridge.Feverish
puzzleWalter Reed: a biography
by William B. Bean
University Press of Virginia,
distributed by Transatlantic Book Ser-
vice, £9.10
ISBN 0 8139 0913 9

In Britain, we are justly proud of Patrick Manson and Ronald Ross who discovered the involvement of mosquitoes in transmission respectively of filariasis and malaria. These diseases did not affect us directly, being scourges of tropical peoples, although at one time our colonial administrators and doctors were at risk. Americans, however, have even more reason to revere Walter Reed and his colleagues for incriminating the vector of yellow fever, since this disease actually invaded their own country.

Thus, in 1878, an epidemic in the Mississippi Valley caused some 120,000 cases with 20,000 deaths. Furthermore, as Dr Bean vividly recounts in his short but scholarly biography, American troops were afflicted by it in the densely infected Caribbean during the Spanish-American War of 1898. The disease was sudden in incidence, ghastly in its rapid course, with black vomit and delirium, and had a high fatality

rate. Then, unlike malaria for which the benefits of quinine had been known for many years, no effective drugs were known, although many were tried, most of them actually harmful. Until it was shown that only mosquito bites carried the disease, Carroll were apparently infected in this way; both became intensely ill and Lazear died.

A particular difficulty in elucidating the aetiology of yellow fever was the fact that the pathogen is a virus, which could not be seen with ordinary microscopes. A serious "red herc" which confounded the research, was the spurious claim by Sanarelli, an Italian doctor in South America, to have discovered the pathogen in an adventitious bacterium. It is true, as Dr Bean points out, that Carlos Finlay in Cuba had for some years predicted that a common house-haunting mosquito of the tropics was responsible for transmission. But he was unsuccessful in attempts to prove this by experiments, as he did not allow for the 11-day incubation period in the insect; and most authorities were quite scornful of the idea.

This was the puzzle which faced Walter Reed in 1900, heading a group of four doctors in Cuba. These were: Lazear, an American, Carroll, an Englishman and Agronome, a Cuban. Reed was an Army doctor at the rank of major, often harassed by being recalled to Washington on official business, some of it trifling. After early doubts, he was finally convinced by the mosquito theory

and, with his team, was forced to consider experiment with human volunteers to test it. The first trials, while he was in Washington, were inconclusive, due to inadequate experimental precautions. Lazear and Carroll were apparently infected in this way; both became intensely ill and Lazear died.

Distressing as this was, Reed began more careful tests with volunteer soldiers and immigrants, who were paid \$100 in gold for the risk. Some of them lived with bedding contaminated by fatal cases, but protected from mosquitoes, while another group were bitten by infected mosquitoes. In this way it was established that, after an incubation period, the insects could cause disease. Luckily none of the volunteers died.

Only moderate acclaim resulted immediately from this work and some authorities still doubted the conclusions, while many blamed Reed for the use of human subjects. Reed himself, denied his ambition of the post of Surgeon General, died at the early age of 50, from peritonitis.

Dr Bean, after many years of re-
search, also tells of Reed's early life as
an army doctor, travelling to remote
frontier posts with his young wife, and
of his later fine work on typhoid.

J. R. Busvine

J. R. Busvine is emeritus professor of
entomology as applied to hygiene in the
University of London.CLASSICAL LITERATURE
FROM PRINCETON

Poetry and Myth in Ancient Pastoral

Essays on Theocritus and Virgil
CHARLES SEGAL
Collected in this volume are 15 essays on the pastoral poetry of Theocritus and Virgil. Charles Segal also examines the ancient pastoral poem in relation to the pastoral genre as a whole.
Princeton Series of Collected Essays.
Clothbound, £18.40. Paperbound, £6.65

Choreia

Pindar and Dance
WILLIAM MULLENIn a work that extends our understanding of the literature and culture of the late archaic Greek period, William Mullen discusses dance as an integral part of the work of the great lyric poet Pindar.
£18.70The Literate Revolution in Greece
and Its Cultural ConsequencesERIC A. HAVELOCK
Written over a 25-year period, these articles deal with Greece's technological and intellectual transition from a preliterate to a literate culture, showing the effects of the written word as it came to dominate its oral counterpart.
Princeton Series of Collected Essays.
Clothbound, £18.70. Paperbound, £6.65

Essays on Latin Lyric, Elegy, and Epic

MICHAEL C. J. PUTNAM
In essays devoted to Catullus, Horace, Propertius, Tibullus, and Virgil, this volume provides exercises in practical criticism that greatly increase the accessibility of the poets to the modern reader.
Princeton Series of Collected Essays.
Clothbound, £22.40. Paperbound, £5.90

Essays on Roman Satire

WILLIAM S. ANDERSON
The 15 essays collected here—originally published between 1956 and 1974—argue that Roman verse satire should be viewed primarily as an art form, rather than as a social document or a direct expression of social protest.
Princeton Series of Collected Essays.
Clothbound, £20.50. Paperbound, £6.65

Five Frames for the Decameron

Communication and Social Systems in the *Cornice*
JOY HAMBUECHEN POTTER
Using a fourfold approach derived from symbolic anthropology, sociology, semiotics, and philology, Joy Hambuechen Potter focuses on the *cornice*, or frame tale, of the *Decameron* and its purpose and relationship to the stories.
5 illus. £14.9015a Epsom Road • Guildford, Surrey GU1 3JT
Phone (0483) 68364Princeton
University
Press

Overseas continued

English
Language CentreUniversity of Petroleum & Minerals
Dhahran, Saudi Arabia

The University of Petroleum & Minerals, Dhahran, Saudi Arabia invites applications for TESL positions (native fluency) for the academic year 1983-84 starting 1 September 1983.

Qualifications:
M.A. TESL/Applied Linguistics or M.A. in TEFL or TESL or Post-graduate diploma in TEFL or TESL or Post-graduate certificate in Education (TESL-TEFL).

Experience:
Minimum two years' teaching experience in TEFL/ESL overseas.

Description of Duties:
Teaching English to post-secondary school students with elementary to intermediate proficiency at the University of Petroleum & Minerals.

Minimum regular contract for two years, renewable. Competitive salaries and allowances. Air conditioned and furnished housing provided. Free air transportation to and from Dhahran each year. Attractive educational assistance grants for school age dependent children. All earned income without Saudi taxes. Ten months duty each year with two months vacation with salary. There is also possibility of selection for the University's ongoing summer program with good additional compensation. Apply with complete resume on academic and professional background, list of references and with certified/official copies of transcripts and degrees, including personal data, such as home and office addresses, telephone numbers and family status to:

Dean of Faculty & Personnel Affairs,
University of Petroleum & Minerals,
P.O. Box 144, Dhahran International Airport,
Dhahran, Saudi Arabia.

Universities continued

UNIVERSITY OF HULL
Institute for Health Studies
and
UNIVERSITY OF YORK
Institute of Social and Economic Research

Applications are invited for the three post of

- i. Research Worker
ii. Social Statistician
iii. Health Economist

Teable for three years from December 1st, 1982, to work in a DRES-funded team investigating 'Problem Drinkers and the Statutory Services' data bases, service developments and economic costing...

Research Worker will have responsibility for reviewing current procedures for the identification and handling of problem drinkers in selected parts of the statutory services...

Social Statistician will have responsibility for reviewing current record-keeping systems in selected parts of the statutory services...

Health Economist will have responsibility for ensuring that any proposed record-keeping systems and data bases are capable of generating information relevant to economic costing...

The Research Worker and the Social Statistician will be based in the Institute for Health Studies at the University of Hull...

Applications giving full details of age, qualifications, publications and experience together with the names of at least two referees...

Macquarie University
School of Modern Languages

LECTURER IN CHINESE (Fixed-Term Appointment)

Applications are invited for an appointment to the post of Lecturer in Chinese in the School of Modern Languages...

Preference will be given to candidates who can demonstrate a native speaker's level of fluency in standard modern Chinese...

Applicants should have completed the degree of Doctor of Philosophy in Chinese Language and Literature...

Duties will include supervising the teaching of Chinese in the School of Modern Languages...

Salary range \$40,963 to \$42,136 p.a. plus 1% superannuation...

Further information about the University and the position should be obtained from the Director of the School of Modern Languages...

Applications should be sent to the Director of the School of Modern Languages, Macquarie University, Sydney, New South Wales 2109, Australia...

Applications close on 12 November 1982

The Papua New Guinea University of Technology

Department of Electrical and Communications Engineering
SENIOR LECTURER/PROFESSOR ASSOCIATE (COMMUNICATIONS ENGINEERING)

Applications are invited for the above position in the Department of Electrical and Communications Engineering...

A Venue exists in the form of a research group in the field of communication systems...

Applicants should have a higher degree and substantial experience in the field of communication systems...

Salary: Senior Lecturer \$15,000 p.a. plus 1% superannuation...

Initial contract period is for three years with the possibility of extension...

Conditions of service: Both permanent and short-term contracts are offered...

Six copies of Applications, giving full personal particulars (including full name, place and date of birth, etc.)...

Overseas applicants should send an additional copy of their application to the Association of Commonwealth Universities...

Closing date for receipt of applications is 30th October, 1982.

UNIVERSITY OF ZIMBABWE

Applications are invited for the following posts:

BIOMETRICIAN: FACULTY OF AGRICULTURE (available 1st January, 1983)

The candidate should ideally have a first degree in either Agriculture or the Biological Sciences with a further qualification in Biometrics or Statistics...

LECTURERS/SENIOR LECTURERS: DEPARTMENT OF PHARMACY (available immediately)

Applicants should be Pharmacy or Chemistry graduates with a higher degree and research and teaching experience in Pharmaceutical and Medicinal Chemistry...

LECTURERS/SENIOR LECTURERS: DEPARTMENT OF CIVIL ENGINEERING (available June 1983)

Applicants should have a good first degree in Civil Engineering and five years practical experience in water and waste water engineering...

LECTURERS/SENIOR LECTURERS: DEPARTMENT OF SURGERY (UROLOGY) (available January 1983)

The successful candidate will be responsible for the organisation of the urological services within the school of medicine and organisation of the undergraduate teaching programme...

LECTURERS/SENIOR LECTURERS: DEPARTMENT OF ELECTRICAL ENGINEERING (3 posts) (available March 1983)

(a) Electrical Machines or Power Systems. (b) Applied Electro magnetism/microwaves. (c) Analogue/Power electronics.

The appointee should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

BIOMATHEMATICIAN: DIVISION OF BIOLOGICAL SCIENCES (available March 1983)

The Biomathematician will be required to advise and assist academic staff and postgraduate students with the design, analysis and interpretation of research projects...

Experience in the mathematical analysis and modelling of natural phenomena at all levels including the physiological, the population and the ecological levels will be given special consideration.

LECTURERS/SENIOR LECTURERS: DEPARTMENT OF LAND MANAGEMENT (Agricultural Economics) (available immediately)

Applicants should possess a degree in agricultural economics, preferably at least the M.Sc. level...

Applicants should possess a degree in agricultural economics, preferably at least the M.Sc. level, and be able to teach short courses on these topics...

LECTURERS/SENIOR LECTURERS: DEPARTMENT OF CHEMISTRY (available 1st April, 1983)

Applicants should have Ph.D. in Physical or Analytical Chemistry. The successful applicant will be required to teach and do research in one or both of Physical and Analytical Chemistry.

Non-Medical: Lecturer Grade I: \$28,018 x 519-9,564 x 552-13,428

Lecturer Grade II: \$213,890 x 399-15,564 Senior Lecturer: \$215,000 x 480-18,840

Medical: Assistant Lecturer: \$21,684 x 482-19,382 Lecturer Grade II: \$214,988 x 482-18,120

Lecturer Grade I: \$217,988 x 480-18,908 Senior Lecturer: \$220,100 x 600-22,500

Appointment on above scales according to qualifications and experience.

CONDITIONS OF SERVICE: Both permanent and short-term contracts are offered. Persons who are not Zimbabwean citizens may be appointed only on a short-term contract...

Six copies of Applications, giving full personal particulars (including full name, place and date of birth, etc.)...

Overseas applicants should send an additional copy of their application to the Association of Commonwealth Universities...

Closing date for receipt of applications is 30th October, 1982.

THE UNIVERSITY OF NEW ENGLAND Australia

THREE YEAR LECTURESHIP - AGRONOMY (PASTURE SCIENCE) Position No. 463

Applications are invited for an outside funded term lectureship from persons with a professional and research background in pasture science...

The Department of Agronomy and Soil Science teaches undergraduate in the Faculties of Rural Science, Economic Studies, Resource Management, Science and Art, and externally, in the Faculty of Arts...

Further information may be obtained from Associate Professor J. V. Lovell, Department of Agronomy and Soil Science.

The appointment will be available from 1st January 1983. Conditions include assistance with travel and removal of personal effects.

SALARY RANGE: \$420,963 to \$427,539 (currently under review). CLOSING DATE: 12 November 1982.

POSTGRADUATE ADVISOR - AGRONOMY & SOIL SCIENCE Position No. 464

The University is acting as Managing Agent for an Australian Development Assistance Bureau sponsored bilateral aid project in Indonesia...

A person is required to assist in the supervision of a group of Indonesian and Australian postgraduate students...

The appointee will be located at U.N.E. and will be responsible for overseeing the students' analytical, computational and library work...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Applicants should have a good first degree in Electrical Engineering and at least 5 years practical and teaching experience...

Universities continued

University of The South Pacific DIRECTOR OF EXTENSION SERVICES

Applications are invited for the post of Director of Extension Services (post 82841).

The Director is responsible to the Vice-Chancellor for the extension and development of the University...

Further information may be obtained from the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Applications should be sent to the Director of Extension Services, University of the South Pacific, Suva, Fiji.

Macquarie University Sydney, Australia School of Economics and Financial Studies LECTURER IN ECONOMICS (Fixed-Term Appointment)

Applications are invited for an appointment to the post of Lecturer in Economics in the School of Economics and Financial Studies...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

Applicants should have a higher degree and research and teaching experience in the field of Economics...

University of the West Indies Trinidad Department of Management Studies LECTURER/ASSISTANT LECTURER IN ACCOUNTING

Applications are invited for the post of Lecturer/Assistant Lecturer in Accounting in the Department of Management Studies...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

Applicants should have a higher degree and research and teaching experience in the field of Accounting...

The University of Sydney FIXED-TERM LECTURESHIP IN PSYCHOLOGY

The Department's main needs lie in the area of individual differences and experimental psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Downing College RESEARCH FELLOWSHIPS

The Governing Body of Downing College invites applications for research fellowships...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the field of Psychology...

Applicants should have a higher degree and research and teaching experience in the

Polytechnics continued

NORTH STAFFS POLY
 FACULTY OF BUSINESS
 AND SOCIAL SCIENCES
 Department of Sociology

Head of Department
 GRADE V
 Salary: £14,679-£16,305

Applications are invited for this new, currently vacant post that has been created by the designation of a separate Department of Sociology.

Further particulars are available from:
 The Personnel Officer, North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DE.

Tel: Stoke-on-Trent 45531, Ext. 297.
 Application forms should be returned by not later than 1st November, 1982.

THE POLYTECHNIC WOLVERHAMPTON

Applications are invited for the post of

LECTURER II / SENIOR LECTURER IN LAW

by the Department of Legal Studies to assist in the teaching on the law courses, both degree and professional, and on other degree and professional courses. Candidates should have a good honours degree and preferably be qualified solicitors. Duties to commence 1st January 1983, or as soon as possible thereafter.

Application forms and further details may be obtained from the Staffing Clerk, The Polytechnic, Wolverhampton WV1 1SB (0902 710654 - ansaphone after office hours)

The Committee of Directors of Polytechnics
 Invites applications for the post of

Secretary to the Committee

Applicants should have a thorough understanding of the system of higher education and the role of the Polytechnics within the system. Experience at a senior level of administration and an aptitude for written and statistical presentation and negotiation are essential. The person appointed will lead a small team dealing with a diversity of activities.

Salary in the band £16,776 pa - £18,468 pa (including London weighting depending on previous experience. Commencing date early 1983).

Further particulars are available from: The Office of the Committee of Directors of Polytechnics, 309 Regent Street, London W1, Tel: 01-637 9939.

Applications (with the names of three referees) should be addressed to the Chairman of the Committee, quoting reference SA. Closing date 26th October 1982.

DUNDEE COLLEGE OF TECHNOLOGY

Senior Lectureship in Accountancy

Applications are invited from graduates and/or professionally qualified accountants with substantial experience of undergraduate teaching, industrial, commercial, research or other relevant experience would be advantageous.

Salary scale £11,700-£12,987 (Bar) - £14,742 with initial placing dependent upon approved previous experience. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application forms are obtainable from the Personnel Officer, Dundee College of Technology, Ball Street, Dundee, DD1 1HG with whom completed applications should be lodged not later than 22 October 1982.

Manchester Polytechnic
 Faculty of Management & Business Studies

HEAD OF DEPARTMENT OF ECONOMICS & ECONOMIC HISTORY (GRADE VI)

Applicants should be able to show evidence of ability to lead and develop a discipline-based department in the current climate of industry and government. In addition to the requirements of a wide range of professional and postgraduate courses in the polytechnic.

Salary scale: £15,807-£17,499

For further particulars and application forms (returnable by 1st November 1982) send a self-addressed envelope marked 'E1' to the Secretary, Manchester Polytechnic, Manchester M13 9PL.

NORTH STAFFS POLY
 FACULTY OF BUSINESS AND SOCIAL SCIENCES
 Department of Law

HEAD OF DEPARTMENT
 GRADE V
 Salary: £14,679-£16,305

Applications are invited for this new, currently vacant post that has been created by the designation of a separate Department of Law.

Further particulars are available from:
 The Personnel Officer, North Staffordshire Polytechnic, College Road, Stoke-on-Trent, ST4 2DE. Tel: Stoke-on-Trent 45531, Ext. 297.
 Application forms should be returned by not later than 1st November, 1982.

CITY OF BIRMINGHAM POLYTECHNIC

ACADEMIC REGISTRAR
 £11,517 - £12,690

Applications are invited from suitably qualified and experienced persons for appointment as Academic Registrar of this large Polytechnic on the retirement of the present post holder.

Applicants must have good academic and managerial qualifications, experience of work at a senior level in an Institute of Higher and Further Education or in a comparable situation is desirable.

Candidates, male/female, may obtain further details and application forms (returnable by 22nd October, 1982) from the Personnel Officer, City of Birmingham Polytechnic, 'F' Block, Perry Barr, Birmingham B42 2SU.

ROBERT GORDON'S INSTITUTE OF TECHNOLOGY ABERDEEN
 SCHOOL OF HOME ECONOMICS

LECTURER AND SENIOR LECTURER (PL equivalent)

Home Economics Graduates or equivalent to contribute to BSc Home Economics course in areas of Consumer Studies, Domestic Technology, Food Studies and Textile Studies.

Salary ranges:
 Lecturer £7956 - £12,861 per annum.
 Senior Lecturer £11,700 - £14,748 per annum.

Assistance with removal expenses.

Details from Secretary, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen AB9 1PR. Tel: 0224-936611.

Oxford Polytechnic
 Faculty of Technology
 Department of Catering Management

Temporary post of LECTURER in Applied Social Science for one year from 1st January 1983.

The appointee will teach and apply technology to a number of following leisure programmes in catering studies.

Salaries: Lecturer, II £5,835 - £7,022; Senior Lecturer £10,175-£13,816.

Application forms and further particulars may be obtained from the Personnel Officer, Oxford Polytechnic, Oxford OX2 0BP.

Closing date for applications is 31st October 1982.

Middlesex Polytechnic
 Research Fellow

To carry out a two-year research project in the use of Bayesian statistical methods for analysis of data. The project is at the disposal of the applicant and for managing the effects of regional treatment.

A higher degree in statistics or equivalent with some experience of research. The post is available to those who have a first class honours degree with a thesis in statistics or an equivalent qualification for more than two years.

Salary: Research Fellow £12,000-£13,500 per annum.

Further information: Personnel Officer, Middlesex Polytechnic, 150th Avenue, London N15 8NF. Tel: 01-811-1313.

Application forms should be returned to the Secretary, Middlesex Polytechnic, 150th Avenue, London N15 8NF. Closing date: November 1982.

Colleges of Further Education

St Mary's College
 Strawberry Hill

ST. MARY'S COLLEGE
 Strawberry Hill, Twickenham

Applications are invited for the following appointments:

COMPUTER MANAGER

The College offers courses leading to the Degree of B.A., B.Ed. and B.Sc., many of which include work with computers. The Computer Manager will be required to take charge of 1 mini- and 16 micro-computers with a view to providing efficient computer services to these courses and to some aspects of College administration.

Applicants should have relevant experience in some aspects of Higher Education and/or schools as well as credentials in computing. The appointment will be at L1/S/L level.

MUSIC LECTURER

This will be a quarter-time appointment at L1/S/L level (one day or two half-days) to assist in the department with written music and to contribute to other areas such as contemporary music, music education or music and liturgy.

Salaries will be in accordance with the Burnham Further Education Scales plus London Allowance. Closing date for receipt of applications will be Friday, 22nd October, 1982.

Further details from the Principal, St. Mary's College, Strawberry Hill, Twickenham TW1 4SX.

HILTON LODGE SCHOOL OF LAW
 At Davies' College, 44 Cromwell Road, Hove
 An Independent College of Further Education
 Principal: R. Bellerby, M.A., B.Sc.

DEPUTY COURSE DIRECTOR (LL.B)

The Hilton Lodge School of Law offers a small full-time course for the London University External LL.B examinations, primarily for post 'A' level students from Davies' Colleges in London and Hove and, in addition, a part-time home study course is offered for students overseas (at the present time Hong Kong, Kuala Lumpur and Singapore).

In addition to a correspondence course lectures are given in the students' home country by our tutors, and the Deputy Course Director will be required to assist in the expansion and development of these courses, participating in both the teaching and administration.

The post will be initially part-time, leading to full-time as soon as possible.

Applications are invited from suitably qualified teachers who should be good Honours Graduates with appropriate professional and teaching qualifications. Applications should be made in writing, including a full C.V. and the names and addresses and telephone numbers of two academic referees. Applications should be addressed to Mrs. Susan Backwell, LL.B., Cert. Ed., Barrister-at-Law, the Course Director and should be received no later than Wednesday, 20th October 1982.

Hereford & Worcester County Council
 Kidderminster College
 in conjunction with
 The Polytechnic, Wolverhampton

PRINCIPAL LECTURER

and potential Course Leader in the B.A. (Hons) in Health and Social Studies.

Applicants should be academically qualified and experienced in teaching in the area of health and social studies. The post will be initially part-time, leading to full-time as soon as possible.

Salary scale: £11,081-£15,018 (Bar) or £13,180-£17,117 (Bar) or £15,018-£18,955 (Bar) or £16,955-£20,892 (Bar) or £18,892-£22,829 (Bar) or £20,829-£24,766 (Bar) or £22,766-£26,703 (Bar) or £24,703-£28,640 (Bar) or £26,640-£30,577 (Bar) or £28,577-£32,514 (Bar) or £30,514-£34,451 (Bar) or £32,451-£36,388 (Bar) or £34,388-£38,325 (Bar) or £36,325-£40,262 (Bar) or £38,262-£42,199 (Bar) or £40,199-£44,136 (Bar) or £42,136-£46,073 (Bar) or £44,073-£48,010 (Bar) or £46,010-£50,000 (Bar) or £48,000-£52,000 (Bar) or £50,000-£54,000 (Bar) or £52,000-£56,000 (Bar) or £54,000-£58,000 (Bar) or £56,000-£60,000 (Bar) or £58,000-£62,000 (Bar) or £60,000-£64,000 (Bar) or £62,000-£66,000 (Bar) or £64,000-£68,000 (Bar) or £66,000-£70,000 (Bar) or £68,000-£72,000 (Bar) or £70,000-£74,000 (Bar) or £72,000-£76,000 (Bar) or £74,000-£78,000 (Bar) or £76,000-£80,000 (Bar) or £78,000-£82,000 (Bar) or £80,000-£84,000 (Bar) or £82,000-£86,000 (Bar) or £84,000-£88,000 (Bar) or £86,000-£90,000 (Bar) or £88,000-£92,000 (Bar) or £90,000-£94,000 (Bar) or £92,000-£96,000 (Bar) or £94,000-£98,000 (Bar) or £96,000-£100,000 (Bar) or £98,000-£102,000 (Bar) or £100,000-£104,000 (Bar) or £102,000-£106,000 (Bar) or £104,000-£108,000 (Bar) or £106,000-£110,000 (Bar) or £108,000-£112,000 (Bar) or £110,000-£114,000 (Bar) or £112,000-£116,000 (Bar) or £114,000-£118,000 (Bar) or £116,000-£120,000 (Bar) or £118,000-£122,000 (Bar) or £120,000-£124,000 (Bar) or £122,000-£126,000 (Bar) or £124,000-£128,000 (Bar) or £126,000-£130,000 (Bar) or £128,000-£132,000 (Bar) or £130,000-£134,000 (Bar) or £132,000-£136,000 (Bar) or £134,000-£138,000 (Bar) or £136,000-£140,000 (Bar) or £138,000-£142,000 (Bar) or £140,000-£144,000 (Bar) or £142,000-£146,000 (Bar) or £144,000-£148,000 (Bar) or £146,000-£150,000 (Bar) or £148,000-£152,000 (Bar) or £150,000-£154,000 (Bar) or £152,000-£156,000 (Bar) or £154,000-£158,000 (Bar) or £156,000-£160,000 (Bar) or £158,000-£162,000 (Bar) or £160,000-£164,000 (Bar) or £162,000-£166,000 (Bar) or £164,000-£168,000 (Bar) or £166,000-£170,000 (Bar) or £168,000-£172,000 (Bar) or £170,000-£174,000 (Bar) or £172,000-£176,000 (Bar) or £174,000-£178,000 (Bar) or £176,000-£180,000 (Bar) or £178,000-£182,000 (Bar) or £180,000-£184,000 (Bar) or £182,000-£186,000 (Bar) or £184,000-£188,000 (Bar) or £186,000-£190,000 (Bar) or £188,000-£192,000 (Bar) or £190,000-£194,000 (Bar) or £192,000-£196,000 (Bar) or £194,000-£198,000 (Bar) or £196,000-£200,000 (Bar) or £198,000-£202,000 (Bar) or £200,000-£204,000 (Bar) or £202,000-£206,000 (Bar) or £204,000-£208,000 (Bar) or £206,000-£210,000 (Bar) or £208,000-£212,000 (Bar) or £210,000-£214,000 (Bar) or £212,000-£216,000 (Bar) or £214,000-£218,000 (Bar) or £216,000-£220,000 (Bar) or £218,000-£222,000 (Bar) or £220,000-£224,000 (Bar) or £222,000-£226,000 (Bar) or £224,000-£228,000 (Bar) or £226,000-£230,000 (Bar) or £228,000-£232,000 (Bar) or £230,000-£234,000 (Bar) or £232,000-£236,000 (Bar) or £234,000-£238,000 (Bar) or £236,000-£240,000 (Bar) or £238,000-£242,000 (Bar) or £240,000-£244,000 (Bar) or £242,000-£246,000 (Bar) or £244,000-£248,000 (Bar) or £246,000-£250,000 (Bar) or £248,000-£252,000 (Bar) or £250,000-£254,000 (Bar) or £252,000-£256,000 (Bar) or £254,000-£258,000 (Bar) or £256,000-£260,000 (Bar) or £258,000-£262,000 (Bar) or £260,000-£264,000 (Bar) or £262,000-£266,000 (Bar) or £264,000-£268,000 (Bar) or £266,000-£270,000 (Bar) or £268,000-£272,000 (Bar) or £270,000-£274,000 (Bar) or £272,000-£276,000 (Bar) or £274,000-£278,000 (Bar) or £276,000-£280,000 (Bar) or £278,000-£282,000 (Bar) or £280,000-£284,000 (Bar) or £282,000-£286,000 (Bar) or £284,000-£288,000 (Bar) or £286,000-£290,000 (Bar) or £288,000-£292,000 (Bar) or £290,000-£294,000 (Bar) or £292,000-£296,000 (Bar) or £294,000-£298,000 (Bar) or £296,000-£300,000 (Bar) or £298,000-£302,000 (Bar) or £300,000-£304,000 (Bar) or £302,000-£306,000 (Bar) or £304,000-£308,000 (Bar) or £306,000-£310,000 (Bar) or £308,000-£312,000 (Bar) or £310,000-£314,000 (Bar) or £312,000-£316,000 (Bar) or £314,000-£318,000 (Bar) or £316,000-£320,000 (Bar) or £318,000-£322,000 (Bar) or £320,000-£324,000 (Bar) or £322,000-£326,000 (Bar) or £324,000-£328,000 (Bar) or £326,000-£330,000 (Bar) or £328,000-£332,000 (Bar) or £330,000-£334,000 (Bar) or £332,000-£336,000 (Bar) or £334,000-£338,000 (Bar) or £336,000-£340,000 (Bar) or £338,000-£342,000 (Bar) or £340,000-£344,000 (Bar) or £342,000-£346,000 (Bar) or £344,000-£348,000 (Bar) or £346,000-£350,000 (Bar) or £348,000-£352,000 (Bar) or £350,000-£354,000 (Bar) or £352,000-£356,000 (Bar) or £354,000-£358,000 (Bar) or £356,000-£360,000 (Bar) or £358,000-£362,000 (Bar) or £360,000-£364,000 (Bar) or £362,000-£366,000 (Bar) or £364,000-£368,000 (Bar) or £366,000-£370,000 (Bar) or £368,000-£372,000 (Bar) or £370,000-£374,000 (Bar) or £372,000-£376,000 (Bar) or £374,000-£378,000 (Bar) or £376,000-£380,000 (Bar) or £378,000-£382,000 (Bar) or £380,000-£384,000 (Bar) or £382,000-£386,000 (Bar) or £384,000-£388,000 (Bar) or £386,000-£390,000 (Bar) or £388,000-£392,000 (Bar) or £390,000-£394,000 (Bar) or £392,000-£396,000 (Bar) or £394,000-£398,000 (Bar) or £396,000-£400,000 (Bar) or £398,000-£402,000 (Bar) or £400,000-£404,000 (Bar) or £402,000-£406,000 (Bar) or £404,000-£408,000 (Bar) or £406,000-£410,000 (Bar) or £408,000-£412,000 (Bar) or £410,000-£414,000 (Bar) or £412,000-£416,000 (Bar) or £414,000-£418,000 (Bar) or £416,000-£420,000 (Bar) or £418,000-£422,000 (Bar) or £420,000-£424,000 (Bar) or £422,000-£426,000 (Bar) or £424,000-£428,000 (Bar) or £426,000-£430,000 (Bar) or £428,000-£432,000 (Bar) or £430,000-£434,000 (Bar) or £432,000-£436,000 (Bar) or £434,000-£438,000 (Bar) or £436,000-£440,000 (Bar) or £438,000-£442,000 (Bar) or £440,000-£444,000 (Bar) or £442,000-£446,000 (Bar) or £444,000-£448,000 (Bar) or £446,000-£450,000 (Bar) or £448,000-£452,000 (Bar) or £450,000-£454,000 (Bar) or £452,000-£456,000 (Bar) or £454,000-£458,000 (Bar) or £456,000-£460,000 (Bar) or £458,000-£462,000 (Bar) or £460,000-£464,000 (Bar) or £462,000-£466,000 (Bar) or £464,000-£468,000 (Bar) or £466,000-£470,000 (Bar) or £468,000-£472,000 (Bar) or £470,000-£474,000 (Bar) or £472,000-£476,000 (Bar) or £474,000-£478,000 (Bar) or £476,000-£480,000 (Bar) or £478,000-£482,000 (Bar) or £480,000-£484,000 (Bar) or £482,000-£486,000 (Bar) or £484,000-£488,000 (Bar) or £486,000-£490,000 (Bar) or £488,000-£492,000 (Bar) or £490,000-£494,000 (Bar) or £492,000-£496,000 (Bar) or £494,000-£498,000 (Bar) or £496,000-£500,000 (Bar) or £498,000-£502,000 (Bar) or £500,000-£504,000 (Bar) or £502,000-£506,000 (Bar) or £504,000-£508,000 (Bar) or £506,000-£510,000 (Bar) or £508,000-£512,000 (Bar) or £510,000-£514,000 (Bar) or £512,000-£516,000 (Bar) or £514,000-£518,000 (Bar) or £516,000-£520,000 (Bar) or £518,000-£522,000 (Bar) or £520,000-£524,000 (Bar) or £522,000-£526,000 (Bar) or £524,000-£528,000 (Bar) or £526,000-£530,000 (Bar) or £528,000-£532,000 (Bar) or £530,000-£534,000 (Bar) or £532,000-£536,000 (Bar) or £534,000-£538,000 (Bar) or £536,000-£540,000 (Bar) or £538,000-£542,000 (Bar) or £540,000-£544,000 (Bar) or £542,000-£546,000 (Bar) or £544,000-£548,000 (Bar) or £546,000-£550,000 (Bar) or £548,000-£552,000 (Bar) or £550,000-£554,000 (Bar) or £552,000-£556,000 (Bar) or £554,000-£558,000 (Bar) or £556,000-£560,000 (Bar) or £558,000-£562,000 (Bar) or £560,000-£564,000 (Bar) or £562,000-£566,000 (Bar) or £564,000-£568,000 (Bar) or £566,000-£570,000 (Bar) or £568,000-£572,000 (Bar) or £570,000-£574,000 (Bar) or £572,000-£576,000 (Bar) or £574,000-£578,000 (Bar) or £576,000-£580,000 (Bar) or £578,000-£582,000 (Bar) or £580,000-£584,000 (Bar) or £582,000-£586,000 (Bar) or £584,000-£588,000 (Bar) or £586,000-£590,000 (Bar) or £588,000-£592,000 (Bar) or £590,000-£594,000 (Bar) or £592,000-£596,000 (Bar) or £594,000-£598,000 (Bar) or £596,000-£600,000 (Bar) or £598,000-£602,000 (Bar) or £600,000-£604,000 (Bar) or £602,000-£606,000 (Bar) or £604,000-£608,000 (Bar) or £606,000-£610,000 (Bar) or £608,000-£612,000 (Bar) or £610,000-£614,000 (Bar) or £612,000-£616,000 (Bar) or £614,000-£618,000 (Bar) or £616,000-£620,000 (Bar) or £618,000-£622,000 (Bar) or £620,000-£624,000 (Bar) or £622,000-£626,000 (Bar) or £624,000-£628,000 (Bar) or £626,000-£630,000 (Bar) or £628,000-£632,000 (Bar) or £630,000-£634,000 (Bar) or £632,000-£636,000 (Bar) or £634,000-£638,000 (Bar) or £636,000-£640,000 (Bar) or £638,000-£642,000 (Bar) or £640,000-£644,000 (Bar) or £642,000-£646,000 (Bar) or £644,000-£648,000 (Bar) or £646,000-£650,000 (Bar) or £648,000-£652,000 (Bar) or £650,000-£654,000 (Bar) or £652,000-£656,000 (Bar) or £654,000-£658,000 (Bar) or £656,000-£660,000 (Bar) or £658,000-£662,000 (Bar) or £660,000-£664,000 (Bar) or £662,000-£666,000 (Bar) or £664,000-£668,000 (Bar) or £666,000-£670,000 (Bar) or £668,000-£672,000 (Bar) or £670,000-£674,000 (Bar) or £672,000-£676,000 (Bar) or £674,000-£678,000 (Bar) or £676,000-£680,000 (Bar) or £678,000-£682,000 (Bar) or £680,000-£684,000 (Bar) or £682,000-£686,000 (Bar) or £684,000-£688,000 (Bar) or £686,000-£690,000 (Bar) or £688,000-£692,000 (Bar) or £690,000-£694,000 (Bar) or £692,000-£696,000 (Bar) or £694,000-£698,000 (Bar) or £696,000-£700,000 (Bar) or £698,000-£702,000 (Bar) or £700,000-£704,000 (Bar) or £702,000-£706,000 (Bar) or £704,000-£708,000 (Bar) or £706,000-£710,000 (Bar) or £708,000-£712,000 (Bar) or £710,000-£714,000 (Bar) or £712,000-£716,000 (Bar) or £714,000-£718,000 (Bar) or £716,000-£720,000 (Bar) or £718,000-£722,000 (Bar) or £720,000-£724,000 (Bar) or £722,000-£726,000 (Bar) or £724,000-£728,000 (Bar) or £726,000-£730,000 (Bar) or £728,000-£732,000 (Bar) or £730,000-£734,000 (Bar) or £732,000-£736,000 (Bar) or £734,000-£738,000 (Bar) or £736,000-£740,000 (Bar) or £738,000-£742,000 (Bar) or £740,000-£744,000 (Bar) or £742,000-£746,000 (Bar) or £744,000-£748,000 (Bar) or £746,000-£750,000 (Bar) or £748,000-£752,000 (Bar) or £750,000-£754,000 (Bar) or £752,000-£756,000 (Bar) or £754,000-£758,000 (Bar) or £756,000-£760,000 (Bar) or £758,000-£762,000 (Bar) or £760,000-£764,000 (Bar) or £762,000-£766,000 (Bar) or £764,000-£768,000 (Bar) or £766,000-£770,000 (Bar) or £768,000-£772,000 (Bar) or £770,000-£774,000 (Bar) or £772,000-£776,000 (Bar) or £774,000-£778,000 (Bar) or £776,000-£780,000 (Bar) or £778,000-£782,000 (Bar) or £780,000-£784,000 (Bar) or £782,000-£786,000 (Bar) or £784,000-£788,000 (Bar) or £786,000-£790,000 (Bar) or £788,000-£792,000 (Bar) or £790,000-£794,000 (Bar) or £792,000-£796,000 (Bar) or £794,000-£798,000 (Bar) or £796,000-£800,000 (Bar) or £798,000-£802,000 (Bar) or £800,000-£804,000 (Bar) or £802,000-£806,000 (Bar) or £804,000-£808,000 (Bar) or £806,000-£810,000 (Bar) or £808,000-£812,000 (Bar) or £810,000-£814,000 (Bar) or £812,000-£816,000 (Bar) or £814,000-£818,000 (Bar) or £816,000-£820,000 (Bar) or £818,000-£822,000 (Bar) or £820,000-£824,000 (Bar) or £822,000-£826,000 (Bar) or £824,000-£828,000 (Bar) or £826,000-£830,000 (Bar) or £828,000-£832,000 (Bar) or £830,000-£834,000 (Bar) or £832,000-£836,000 (Bar) or £834,000-£838,000 (Bar) or £836,000-£840,000 (Bar) or £838,000-£842,000 (Bar) or £840,000-£844,000 (Bar) or £842,000-£846,000 (Bar) or £844,000-£848,000 (Bar) or £846,000-£850,000 (Bar) or £848,000-£852,000 (Bar) or £850,000-£854,000 (Bar) or £852,000-£856,000 (Bar) or £854,000-£858,000 (Bar) or £856,000-£860,000 (Bar) or £858,000-£862,000 (Bar) or £860,000-£864,000 (Bar) or £862,000-£866,000 (Bar) or £864,000-£868,000 (Bar) or £866,000-£870,000 (Bar) or £868,000-£872,000 (Bar) or £870,000-£874,000 (Bar) or £872,000-£876,000 (Bar) or £874,000-£878,000 (Bar) or £876,000-£880,000 (Bar) or

